The role of information and information provision channels in customer value creation process:

Imperial College Business School Careers Service as an illustration

Studinska Olga

A dissertation submitted to the University of Wales in partial fulfilment of the requirements for the degree of Magister in Scientia Economica (MSc) under Alternative Regulations

Department of Information Studies

Aberystwyth University

2012

Abstract

This research aimed to increase the understanding of the role that information and information provision channels play in the customer value creation process within the Higher Education (HE) Careers Service environment, by investigating customer opinions, experiences, beliefs and impressions. Imperial College Business School was used as the instrumental study case.

Literature review within the broad area of Marketing shows that the concept of customer value creation is widely accepted as being an integral part of the service delivery process, especially so in the light of the Service-Dominant Logic. The literature also supports the idea of seeing students as customers and education as a service. However, there has been little research on student value creation and co-creation within the education setting, in general, and on the role that information and information provision channels play in customer value creation in HE Careers Services, in particular.

The methodology adopted in the study made use of the mixed method sequential exploratory research, which consisted of a qualitative phase followed by a quantitative one. The results show that the provided information and information provision channels offered by the Careers Service contribute to the customer value creation process by increasing student knowledge base, competence, confidence, efficiency, convenience and by widening student perspective.

In conclusion, this study serves as a first step towards understanding the role that information and information provision channels play in the customer value creation process within the HE Careers Service environment and proposes a framework for researching the subject further.

Contents

List of tables

List of figures

Abbreviations and acronyms

AGCAS	Association of Graduate Careers Advisory Services
CV	Curriculum Vitae
EBSCO	Business Source Complete
FP	Foundational Premises
GDL	Goods-Dominant Logic
HE	Higher Education
ICBS	Imperial College Business School
ICT	Information and Communications Technologies
LISA	Library and Information Science Abstracts
LISTA	Library, Information Science and Technology Abstracts
OECD	Organisation of Economic, Cooperation and Development
Q	Question
R	Respondent
RefWorks	Web-based bibliography and citation manager
RQ	Research question
SDL	Service-Dominant Logic
The Careers Hub	Online Careers Customer Management System
WoK	Web of Knowledge

Acknowledgements

I would like to thank each of the research participants, who took time during the summer term to contribute their blog postings, participate in the focus group or answer questions. Without your help this dissertation would not have been possible.

I would also like to thank my supervisor Dr. Judith Broady-Preston for her advice and guidance and Dr. Sue Lithgow for her always timely help and support.

Last but not least, a big thank you to my husband Kostis for believing in me, and for his support, patience and understanding throughout my studies.

1 Introduction

1.1 Background to the study

In recent years the education industry is increasingly seen as a service and students as customers (see for example Bowden and D'Alessandro, 2011; Woodall et al, 2012). This trend has been amplified by a combination of ongoing reforms in Higher Education (HE), which bring reductions in funding and the introduction of higher tuition fees (Higher Education Funding Council for England, 2011), and a global economic crisis, which forces universities to compete for students. In this underlying landscape, and as students clearly exhibit certain customer characteristics, it seems appropriate to apply marketing concepts in the educational context. Of those, the concepts of customer value creation and co-creation become highly relevant and encompass not only the core service of the learning experience but also all associated sub-services, such as Library, Registration, Accommodation, Careers and Employability Offices and so on, that go with it (Ng and Forbes, 2009). Such approach is consistent with the essence of Service-Dominant logic (SDL) described by Lusch and Vargo (n.d.) as:

> "a mindset for a unified understanding of the purpose and nature of organizations, markets and society".

The foundational proposition of SDL is exchange of service in which customer value creation and co-creation are focal points.

Seen in this perspective, university Careers Services support student vocational orientation and play a significant role in what is termed student experience. In recent years the importance of Careers Services has grown even further since alternatives and choices within education increase, labour market becomes more complex (OECD, Educational Policy Analysis, 2003) and the present global economic crisis makes it more difficult for graduates to compete with more experienced ones already within the labour force.

The idea behind this study began with the discovery of the concept of SDL and its potential relevance within HE while performing an initial marketing literature search to establish an information base for the research proposal. Further targeted literature review on the subject, described in Chapter 2, revealed that only limited theoretical and empirical research on value creation in education settings existed at the time (Ng, & Forbes, 2009; Woodall et al, 2012).

The idea evolved based on covering this gap, at the same time assessing the role of information and information channels[1] in customer value creation in the HE Careers Service environment, which is the professional basis of the researcher.

Information is at the heart of university Careers Services. These make relevant information accessible by organising it in a systematic way and making it available when and where students need it (OECD, Educational Policy Analysis, 2003). Consequently, information and information provision channels within the setting are instrumental in customer value creation and co-creation. In addition, this subject is heavily under-researched, with regard to empirical research as well as theoretical study. Therefore, the present work sets out to contribute empirical research to both the Career Guidance and Information Science disciplines.

1.2 Aims and objectives

With all the above in mind, the present research aims to increase the understanding of the role that information and information provision channels play in customer value creation process within the HE Careers Service environment.

1.2.1 Research question

In order to fulfil the aim, this study seeks to answer the following research question:

How do information and information provision channels offered by the ICBS Careers Service contribute to the student value creation process?

1.2.2 Research purpose

The purpose of this research is to investigate customer opinions, experiences and impressions on how information and information channels offered by the service contribute to the customer value creation process.

[1] In this study, information channels mean all physical, electronic and other ways of communicating and obtaining information. Within the specific case, these include: Blackboard (e-learning environment) Careers Module, Information /Training sessions, Careers Service Webpage, The Careers Hub (online careers portal), in-person Consultations, Advice via Emails/e-bulletins and the Careers Resources Library.

1.2.3 Objectives

The specific research objectives are to:

- Establish through literature review whether:
  - the concepts of SDL, customer value creation and value co-creation are relevant within the specific setting
  - the education industry could be seen as a service
  - the concept of student as a customer is valid
- Identify specific manifestations of the contribution of the information and information provision channels offered by the Careers Service to the student value creation process via qualitative research
- Test the results that emerged from the qualitative research via quantitative research
- Examine transferability of the findings to similar settings and propose ideas for future research.

1.3 Scope

There are many factors that impact the customer value creation process in the Careers Service setting. However, the scope of this research is limited to studying the contribution of information and information provision channels offered by the Careers Service to customer value creation process.

The customer base of the ICBS Careers Service is current students, alumni and prospective students who have accepted their study offers. However, because of the limited time available to conduct the research and due to the inconvenient time of the academic year, this research is limited to exploring the opinions and experiences of current students of the ICBS only.

To make the research manageable, within the timescale and resources available, the study is limited to: an online ideation data collection carried out via a blog which was open for two weeks to 30 purposefully selected students; a focus group conducted with 4 purposefully selected participants; and an online quantitative questionnaire which was open for two weeks to 163 participants selected using a combination of the purposeful and convenience sampling techniques as described in more detail in 3.4.3.

1.4 Structure

The dissertation is divided into five chapters. It begins by setting the background to SDL, customer value creation and co-creation concepts from the relevant literature. It also seeks any documented scholarly views supporting the statement that students should be seen as customers and the education industry as service. In addition, it investigates the literature with regard to university Careers Services and the role of information within them. The results of this examination are detailed in Chapter 2. Next, in Chapter 3, the research methodology employed in this study is described. Chapter 4 presents the results and analysis and discusses the findings. Finally, in Chapter 5, the summary of the study and the lessons learned from the research process are presented, and some ideas for further research are outlined.

1.5 Referencing

The Harvard American Psychological Association (APA) (Imperial College London adaptation) is used throughout this study.

2 Literature review

This chapter outlines the literature search methodology and goes on to describe the theoretical foundation for the study. It focuses on the following concepts relevant to the impact of information on customer value creation process in the HE Careers Service setting: SDL, value creation and value co-creation; education as service; students as customers, and; information in career guidance. The chapter concludes with a summary.

2.1 Methodology

The literature review was conducted following Hart's "Flowchart of the literature search" (Hart, 1998, p.34). This started through an initial search via Google Scholar to establish an information base for the research proposal and begin mapping. Then an identification of literature sources followed.

The outcomes of the initial literature search stage indicated that literature relevant to the research subject is spread over four subject categories: marketing, information science, career guidance and education. This led to the decision to use Library, Information Science and Technology Abstracts (LISTA), Library and Information Science Abstracts (LISA), Business Source Complete (EBSCO), Aberystwyth University Library Catalogue - Primo, Google Scholar, the Web of Knowledge (WoK), the Index to Theses and the Association of Graduate Careers Advisory Services (AGCAS) publications. Also, since the concept of SDL was introduced in 2004 (Vargo and Lusch), the time-span of the literature search was limited to 2004 – present.

The next stage involved a structured search to investigate the relevant literature and consolidate the knowledge base pertinent to the research. Key search terms relating to the research subject gathered through the initial search can be seen in Appendix 1. Boolean logic and the Building Blocks methodology (Booth, 2008) were used to search with every suitable combination of these terms within the four categories (marketing, information science, career guidance and education) to identify as much literature as possible covering all topics.

In addition, following the advice of Biggam and Booth (2011), a snowball/chaining, interactive scanning and the "berry picking" methods (Booth, 2008), including reference chaining, citation, author and author-added keywords searching were used in order to discover additional relevant information. Key publications that were discovered via these methods and were out of the selected time-span (2004 – present) were also considered. All sources of literature were recorded in the web-based bibliography and citation manager RefWorks and then evaluated, critically analysed, and synthesised following the process suggested by Pickard (2007, 26-37).

Performing the literature search for this study proved to be challenging. In the researcher's view, this was because the subject of the research is spread over a number of disciplines, and also because some of the relevant areas were heavily under-researched at the time of conducting the literature review. For example, when combining the chosen terms, the recall was high and the precision low in some cases, while in others there was no recall at all. More specifically, when using the term "information" in combination with other terms, the literature recalled was often related to ICT and when using the term "career guidance", the literature retrieved was in most cases relevant to the subject of Psychology. Even using Boolean logic did not solve this problem entirely.

Using a snowball/chaining, interactive scanning and the "berry picking" methods was laborious and time consuming. However, these proved to be the most suitable methods in the knowledge consolidating task for this study.

2.2 Introduction to the SDL concept

This dissertation studies the role of information and information provision channels in customer value creation from the SDL perspective. Therefore the SDL concept is crucial to the study and it is introduced next.

The combination of services marketing, relationship marketing, market orientation and other relevant marketing sub-disciplines in a new way led to the introduction of the SDL concept. SDL combines the best parts of previous research and, at the same time, discards their weak parts (Gummesson and Mele, 2010).

Before the introduction of SDL, marketing was based on the goods exchange model, so-called Goods-Dominant Logic (GDL). GDL was inherited from economics and focussed on tangible resources, added value and transaction (Smith and Ng, 2012). However, with time, marketing shifted from goods-centred to service-centred which led to the emergence of new marketing sub-disciplines and eventually to marketing discipline fragmentation (Vargo and

Lusch, 2004). Following this, the need for a new paradigm started to emerge (Sheth and Parlatiyar, 2000) which consequently led to the development of SDL.

The SDL concept was first introduced by Vargo and Lusch (2004) and marked the beginning of a new approach to service marketing. The contrasts between GDL and SDL are shown in Table 1.

Table 1: Contrasting GDL and SDL

Goods Dominant Logic	**Service-Dominant Logic**
Goods	Service(s)
Tangible	Intangible
Operand Resources	Operant Resources
Asymmetric Information	Symmetric Information
Propaganda	Conversation
Value Added	Value Proposition
Transactional	Transactional Relational
Profit Maximization	Financial Feedback

(Source: Lusch, Vargo and Malter, 2006, 268)

Over the years, Vargo and Lusch (2004, 2006, 2008b) developed ten fundamental premises of SDL shown in Table 2.

Table 2: Foundational premises of SDL

FP1: Service is the fundamental basis of exchange
FP2: Indirect exchange masks the fundamental basis of exchange
FP3: Goods are a distribution mechanism for service provision
FP4: Operant resources are the fundamental source of competitive advantage
FP5: All economies are service economies
FP6: The customer is always a co-creator of value
FP7: The enterprise cannot deliver value, but only offer value propositions
FP8: A service-centred view is inherently customer oriented and relational
FP9: All social and economic actors are resource integrators
FP10: Value is always uniquely and phenomenologically determined by the beneficiary

(Source: Adapted from Vargo and Lusch, 2008b, 7).

Service in SDL

Vargo and Lusch (2004, 2) define service as:

> "the application of specialized competences (operant resources – knowledge and skills), through deeds, processes, and performances for the benefit of another entity or the entity itself".

FP1 argues that operant resources are the basis of exchange. FP2 expands FP1 further explaining that:

> "goods, money and institutions mask the service for service exchange" (Vargo and Lusch, 2008b, 3).

This means that what individuals seek is always service and, even if they buy goods, it is only for them to offer service. The old saying stating that:

> "people do not buy drills, they buy quarter inch holes" (Vargo and Lusch, 2006, 270)

became a logo of SDL.

Another major change introduced in SDL is the change in use of the plural term "services" to the singular term "service" (Vargo and Lusch, 2008c). This is to reflect the process rather than "units of output".

Resources in SDL

SDL makes a clear distinction between operant and operand resources. Operand resources are those that people can act on them and they are often tangible, static and short in supply (Vargo and Lusch, 2004), e.g. computers, buildings, cars, etc. Operant resources, on the other hand, are intangible and using them one can operate on other tangible or intangible resources, e.g. people, skills, knowledge and abilities. In SDL,

> "Goods (operand resources) are a distribution mechanism for service provision" (FP3)

only, and:

> "Operant resources are the fundamental source of competitive advantage" (FP4).

This shift from tangible to intangible and from operand to operant resources is fundamentally important for organisations as it makes them concentrate on customers and solutions that customers are looking for. The customer plays an active role in SDL and, together with employees and other actors (suppliers, collaborators, etc), they are considered as dynamic operant resources, resource integrators and also as a main source for innovation and value creation (FP9).

Value in SDL

Value in SDL also takes a different dimension. In GDL, when the focus was on goods (tangible resources), value was seen as embedded into products and delivered to customers via exchange as value-added (Vargo and Lusch, 2004). In SDL,

> "The enterprise cannot deliver value, but only offer value propositions" (FP7)

and it is always unique for every customer in a particular context as value-in-use (FP10). According to SDL, neither operant nor operand resources have value as such, rather value is created when the resources, of the firm and the customer, are used (FP7).

> "The customer is always a co-creator of value" (FP6),

and things should be done with the customer in an interactive, customer-centred and relational way (FP8).

Since its introduction, the SDL concept received an extensive amount of attention. On 12 August 2012, according to the Web of Knowledge, the article "Evolving to a New Dominant Logic for marketing" which introduced the SDL concept (Vargo and Lusch, 2004) had been cited 897 times and according to Google Scholar 3155 times. The SDL, whose initial purpose was to serve as a foundation for theory building and eventually empirical testing, turned into being viewed as a foundation for Service Science (Maglio and Spohrer, 2008) and became a truly co-creational community effort (Vargo and Lusch 2011). Among the scholarly community there are those who are the SDL faithful followers (e.g. Rust, 2004, p. 23; Hunt, 2004, p.22), empirical researchers (e.g. Blazevic and Lievens, 2008; Brodie, Pels and Saren, 2006; Brown and Patterson, 2009) and its critics (e.g. Schembri, 2006, p. 390; Achrol and Kotler, 2006, p.323; Holbrook, 2006; Levy, 2006; O'Shaughnessy and O'Shaughnessy, 2009).

SDL is still in an evolving stage and needs to be supported by empirical evidence which is in short supply at the moment (Brown and Patterson, 2009).

2.3 Value creation and value co-creation

The concepts of value creation and co-creation are also crucial for this study and therefore are discussed in the present section in more detail.

Grönroos and Voima (2012) notice that value is possibly the most ill-defined and vague concept in service marketing and management. Indeed, in the last twenty years there have been a few attempts to conceptualise value from a cognitive perspective (e.g. Khalifa 2004; Sánchez-Fernández et al. 2009; Woodall 2003). Recently, scholarly attention shifted towards the customer experience perspective (e.g. Heinonen and Stradvik, 2009; Helkkula et al, 2012), the use of the social construction approach (e.g. Edvardsson, Tronvoll and Gruber, 2011; Epp and Price, 2011) and value multi-dimensionality (Babin and James, 2010; Holbrook, 2005). Babin and James (2010) for example suggest that seeing value as multi-dimensional helps shifting focus from costs and benefits (GDL) to actions and experiences (SDL).

This study adopts Woodruff's (1997, 142) definition of value which states that:

> "Customer value is a customer's perceived preference for and evaluation of those product attributes, attribute performances, and consequences arising from use that facilitate (or block) achieving the customer's goals and purposes in use situations".

This definition is echoed in the current literature as it describes customer value as something experienced in use (value-in-use) which reflects the phenomenological nature of value creation, described by Holbrook (2006, 216) as:

> "an interactive relativistic preference experience".

With the introduction of SDL, customer value creation and co-creation became widely discussed topics. The concept of value co-creation was first introduced by Prahaland and Rawaswamy (2000) and was further developed by the same authors (2004a; 2004b), where they emphasise the importance of joint value creation by the organisation and the customer. They also note that the interaction between the firm and the customer becomes central to value creation and value generation:

> "the interaction can be anywhere in the system, not just at the conventional point of sale or customer service" (2004b, 12).

Value creation and co-creation is described differently by different scholars, e.g. as created in context (Chandler, J. and Vargo, S., 2011), in experience (Helkkula et al, 2012), in social contexts (Edvardsson et al, 2011), etc. The latest definition of value creation was based on a phenomenological perspective which states that:

> “value creation is the customer’s creation of value-in-use during usage, where value is socially constructed through experiences” (Grönroos and Voima, 2012, 5).

However, it is crucial one to be able not only to clearly define what constitutes value creation and value co-creation, but at the same time to understand the role of the service provider and the customer in this process, and to consider all interactions required to occur, including where and when, in order for value to be created and co-created.

Grönroos and Voima (2012, 6) developed an analytical value creation description based on the analysis of the relevant scholarly literature, which states that:

> “value creation during usage is a longitudinal, dynamic, experiential process that may include both construction and destruction phases in different social and physical as well as temporal and spatial settings, where the user is the one experiencing the process in an individual or social context”.

They went on to consider direct and indirect interactions spanning across well defined service provider, customer and joint spheres, for enabling the value creation process, as illustrated in Table 3.

Such a view adds new dimensions to SDL and also to the direct and indirect interaction processes and the role of the provider and the customer in value creation. To the researcher’s opinion, this is the most consistent description in the literature to date of the customer and service provider roles with regard to value creation. It is also deemed relevant within service environments such as Careers Services and is therefore taken as a basis for the present research.

Table 3: Direct & indirect interactions: defining the roles of the customer and service provide

	Provider sphere	Joint sphere		Customer sphere	
	Provider	**Provider**	**Customer**	**Customer (individually)**	**Customer (collectively)**
Value	Potential value-in-use	Value-in-use	Value-in-use	Value-in-use	Value-in-use
	Indirect interaction	**Direct interaction**		**Direct interaction**	
	Value facilitation	Value co-creation	Value co-creation/ Value creation	Independent value creation	Independent social value co-creation
Value eation	The service provider facilitates (e.g. products) and delivers the customer's value creation with resources/processes that are used and experienced in the customer sphere	The service provider's resources/ processes / outcomes interact with the customer's resources/ processes in a merged dialogical process	The customer's resources/ processes interact with the service provider's resources/ processes / outcomes in a merged dialogical process	The customer's resources/ processes/ outcomes (visible and/or mental) interact with the service provider's resources/ processes/ outcomes in a independent (individual and/or social) value creation process (indirect interaction)	Other actors/ activities/ resources interact with the customer's resources/ processes / outcomes (visible and/or mental) in a collective/ social value creating process

Line of visibility/provider control

(Source: Grönroos and Voima, 2012, online)

2.4 Education as service

Services always involve people, processes and physical evidence (Lovelock and Wirtz, 2003). In education, people are tutors, students, support staff, etc; processes are learning, social and other activities and the physical evidence - classrooms, accommodation, campus libraries, etc. If:

> "service is the application of specialized competences (operant resources – knowledge and skills), through deeds, processes, and performances for the benefit of another entity or the entity itself" (Vargo and Lusch, 2008c, 26),

then it is very relevant to education. For example, in education there is clear application of specialised knowledge and skills through teaching-learning processes for the benefit of students, but also for the benefit of the educational institution itself, since a satisfied customer increases the institution's reputation. Clewes (2003) agrees with this statement adding that education is considered as a performance which means that the value gained is experiential. Education also involves the simultaneous production and consumption of the service which engages, both students and academic and support staff, in the production of the educational experience (Binsardi and Ekwulugo, 2003; Hemsley-Brown and Oplatka, 2006; Bowden and D'Alessandro, 2011).

However, education as service is different to any other service in that the service offered by educational institutions consists of two parts, core and supplementary. The core service comprises the learning experience and the supplementary service consists of sub-services such as Registry, Accommodation, Catering, Careers Services and many more. All these services are parts of a big educational machine and each of them hugely contributes to the customer experience of students (Ng and Forbes, 2009). This means that each of these sub-services is equally important.

Ng and Forbes (2009, 54) note that:

> "education as a service is unique in the sense that the quality of the co-created value requires consumers to be screened beforehand and assessed on part of the outcome. The assessment compels the service consumer to commit the effort to ensuring service quality".

Furthermore, student needs and values are individual and unique and they also emerge, develop and transform during their studies. As Ng and Forbes (2009, 54) rightly note:

> "they discover other needs along the way, even latent ones, and reinvent themselves".

This suggests that the education environment is a most fertile place for constant value creation and co-creation and, therefore, the concepts of SDL, value-creation and co-creation are relevant to education.

2.5 Students as customers

The concept of "student as customer" has been extensively debated in scholarly literature in the last two decades (e.g. Acevedo, 20011; Baldwin, 1994; Lomas, 2007; McCulloch, 2009;

Obermiller and Atwood, 2011). Bay and Daniel (2001) argue that treating students as customers puts an institution in the position of concentrating on a short-term goal of student satisfaction rather than on long-term educational and societal goals. However, at the same time they propose to adopt the "student as collaborative partner" paradigm underlining that this would create greater value for all parties involved. Consequently, this view is consistent with both the principles of SDL and value creation and co-creation. Molesworth et al (2009) claim that the statement that students should be seen as customers undermines the core philosophy of education since students study to obtain knowledge and not simply to get a degree. On the other hand, Gross and Hogler (2005) believe that if students are seen as customers, the relationship between students and educators could be better understood within the educational context. Ng and Forbes (2009, 44) add to the debate that:

> "regardless of what universities think students want, it is clear that the student is the consumer of higher education and students' satisfaction in the consumption of a university experience is important".

Woodall et al (2012, 4) point out that there are plausible points in all positions, but:

> "if students do occasionally demonstrate customer-like behaviour, and if – as they manifestly do – university managements construe them collectively as a source of revenue, then "customer" becomes a legitimate frame of reference and analysis - and value becomes an issue of shared concern".

2.6 Careers Services and Information

Previous educational research points out to four types of orientation towards learning: academic orientation, vocational orientation, personal development orientation and social orientation (Beaty et al, 2005). HE Careers Services support student vocational orientation and play an important role in students' lives. In fact, in recent years the importance of Careers Services has grown rapidly since alternatives and choices within education increase and the labour market becomes more complex (OECD, Educational Policy Analysis, 2003).

Having its roots in psychology, Careers Services similarly to other advisory services provide their customers with guidance in decision making via means of information brokerage and via practice of customers' capabilities with the ultimate goal of helping the client in helping themselves (Schwarzer and Posse, 1986 in Schwarzer Schmidt-Rauch and Nussbaumer, 2011). In more detail, Careers Services help their customers to better understand their ambitions, interests and abilities and teach them to plan and make informed career decisions.

They also seek to maximise the use that people make of their talents (OECD, Educational Policy Analysis, 2003). Furthermore, Careers Services help their customers to appreciate how labour markets work and how they could use them to their advantage. Furthermore, they offer training on how to write CVs, job applications and cover letters, provide various types of mock job interviews and many more. In a contemporary HE setting, Careers Services work as Careers and Professional Development Hubs. What is more, they make relevant information accessible by organising it in a systematic way and making it available when and where customers need it (OECD, Educational Policy Analysis, 2003).

Grubb (2002) argues that high quality career information is not sufficient by itself. In order to generate value from the information provided, Careers Services customers should be able to find, analyse, understand and use it. They should also know that it is trustworthy and that it is appropriate for them, and that, if necessary, they will find support in relating it to personal aspirations, talents, achievements and motivations, and in acting upon it (OECD, Educational Policy Analysis, 2003). In Careers Services, as in other advisory services, information can be provided directly, via encounter between Careers Services employees and a customer, when they are both involved in joint problem solving or in needs elicitation and mapping to solutions (Schwarzer Schmidt-Rauch and Nussbaumer, 2011). It can also be provided in groups via e.g. information sessions or workshops and training, and indirectly, e.g. via a webpage, an online careers portal, via news bulletins, etc. In the former case, customer value is co-created jointly with the service provider. In the latter case, value is created by the customer themselves depending on such factors as their needs and their knowledge on how to find or use information.

Value creation takes place:

> “when a potential resource is turned into a specific benefit” (Lusch, Vargo and Wessels, 2008, 8).

Following this logic, information, as any other operand or operant resource, does not have a built-in value, rather it is a transporter of potential value (Grönroos and Voima, 2012) and needs application and integration to become valuable to a customer (Gummesson and Mele, 2010). Consequently, the contribution of offered information and information provision channels to customer value creation needs to become known and understood first, so that new avenues to enhancing the customer value creation process can be explored. A possible way to achieve this, and one that the researcher has specifically applied in the course of the present work, is to seek the impact of information on value creation in the light of the processes described by Grönroos and Voima (2012) and are illustrated in Table 3 (see 2.3 above).

2.7 Positions taken in this study

In line with the conducted literature review, the following positions are taken in this study:

- The SDL concept is applicable to all sorts of organisations, e.g. manufacturing, service, for-profit, non –profit, including HE institutions and Careers Services within them
- The value creation and co-creation concepts**,** described in 2.3, are relevant within the HE Careers Services environment
- As argued in sections 2.4 and 2.5, students should be viewed as customers and the education industry, including HE, should be treated as a service
- Careers Services play an important role in the student experience, and information is vital in the customer value creation process as discussed in section 2.6.

2.8 Summary

There has been substantial progress lately in Marketing, both with regard to theoretical and empirical research. Service Science has been introduced as a separate sub-discipline with SDL being viewed as its foundation, which helps companies develop and deliver services. The customer value creation and co-creation concepts are widely accepted as being an integral part of the service delivery process. However, there has been very little research on these matters within the education setting (Ng and Forbes, 2009; Woodall et al, 2012). In addition, as can be seen from 2.6, theoretical and empirical research literature relevant to the role that information and information provision channels play in customer value creation in HE Careers Services is scarce in the Career Guidance and Information Science disciplines. Consequently, there is a clear need for empirical research on the subject, which could serve as a starting point for further research.

The next chapter presents the methodology employed for conducting this research.

3 Methodology

This chapter provides an overview of the research design and strategy, the data collection and analysis techniques employed and the reasons for adopting them. It also includes an outline of the study population and sampling, In addition, it gives an account of the ethical issues taken into consideration and the limitations of the study.

3.1 Research design

In choosing a research design for this study the advice of Creswell and Plano was followed (2007, 58-88). The researcher adopted the mixed method sequential exploratory design, taxonomy model, which consists of two distinct phases: qualitative followed by quantitative with emphasis on the qualitative data (Creswell et al, 2003 in Creswell and Plano, 2007, 75).

Additionally, the qualitative phase itself also comprised two sequential qualitative parts (A and B). This approach was chosen to develop a high quality qualitative data collection instrument for phase one, part B, because there was lack of empirical research examples in the literature relevant to this study which could have served as a base for developing a credible qualitative data collection instrument.

First, qualitative (text) data (phase one, part A) were used to develop the qualitative data collection instrument for phase one, part B. After data analysis from phase one, part B, the qualitative findings were used to guide the development of a quantitative survey for phase two, so that the two phases were connected in the intermediate stage of the study. Finally, during the second phase, the quantitative (numeric) data were collected and analysed.

The rationale for this design was that the qualitative data collected in part one and their subsequent analysis would help explore the subject in question and identify important variables, and the quantitative data and their subsequent analysis collected in phase two would help generalise and validate the outcomes from the qualitative phase within the case.

Due to its phased approach, the mixed method sequential exploratory design has the following advantages:

- It is easy to describe, implement and report
- It can be used in single and multiphase research studies

- The quantitative data help validating the qualitative.

The disadvantages of this research design are:

- It could be time consuming
- It is not always easy to determine which qualitative findings to use.

3.2 Research strategy

For this research a mixed research strategy was employed which combined an instrumental case study and a survey following the advice of the below scholars.

Rowley (2002, 16) suggests that case studies can be:

> "useful tools for the preliminary, exploratory stage of the research project, as a basis for the development of the more structured tools that are necessary in surveys and experiments".

Eisenhardt (1989, 548) states that case studies are:

> "particularly suited to new research areas or to areas for which existing theory seems inadequate".

Yin (2009, 8) notes that case studies are useful to investigate contemporary events over which the researcher has limited or no control to answer "How" and "Why" questions. Pickard (2007, 86) points out that instrumental case studies are used as an instrument for the investigation of a particular phenomenon or theory, where the case itself is less important.

In addition,

> "qualitative case study is characterised by researchers spending extensive time on site, personally in contact with activities and operations on the case, reflecting and revisiting meanings of what is going on" (Stake in Pickard, 2007, 85).

The site of this study is the researcher's workplace where she spends a lot of her time being personally in contact with activities and operations of the case and, because of this, it seems appropriate to implement a qualitative instrumental case study research strategy.

The case study element in this research involved using qualitative data collection techniques, namely an online ideation in the form of a blog followed by a focus group, while the survey element involved using a quantitative data collection technique in the form of an online questionnaire with closed questions. Such combination of techniques complemented each other's strengths and minimised their weaknesses (Miles and Huberman, 1994, 267).

3.3 Data collection techniques

The mixed method sequential exploratory research design, taxonomy model, requires the procedures which involve the sequential data collection and analysis, in which qualitative data is collected and analysed prior to the quantitative (Creswell and Plano, 2007, 110).

For the first phase of the study, an online ideation took place first, which was followed by a focus group. The focus group design was informed by the outcomes of the online ideation to perform more in-depth qualitative data collection. For the second phase, an online questionnaire data collection technique was employed.

3.3.1 Online ideation

The online ideation method is often used in new services and products design. Variations of this method are also used in market research (Desai, 2002, 104). It involves a discussion via, for example, moderated emails or purposefully created blogs to generate and scrutinise new ideas, investigate opinions and engage customers in innovation activities.

Why online ideation

The online ideation data collection technique was chosen as the starting point because no similar previous research examples on the subject in question were found in the literature. The researcher felt that this technique was appropriate as a preliminary tool, which would allow collecting data via a blog in an exploring, probing and non-intrusive way, spread over several days, in order to devise valid questions for the focus group data collection instrument and, in this way, minimising the risk of failure. Because of the researcher's limited experience and the lack of relevant scholarly literature, this would not be necessarily the case if the data collection started from the focus group straight away.

For the purposes of collecting qualitative data, open-ended question questionnaires, semi-structured or unstructured interviews and focus groups could be used (Pickard, 2007, 171, 183, 219). However, the researcher felt that the disadvantage of open-ended questionnaires for the study purposes was that, while they can provide qualitative data, the questions/themes cannot be added to them once they have been sent out. Also, in questionnaires the participants cannot interact with each other in an evolving discussion.

The researcher saw the disadvantage of the interview data collection method for this study in that the participation of more than one person is not possible and that it would be very time consuming to interview the same number of people in comparison with the online ideation. Also, as with the questionnaires, in interviews, the interaction between the participants is impossible.

The focus group data collection method, which followed the online ideation in this study, while is an excellent tool for qualitative data collection, was highly risky to start the data collection with for the reasons described above. Also it limits the participation of people to a small group.

Additional advantages of online ideation are:

- It is cost-effective and convenient
- The participants do not have to be physically present at the same place
- It combines the main elements of all the methods described above
- The research population in this study is comfortable with using social tools in their everyday life as well as for study purposes

One main disadvantage of this data collection method is that the participants cannot be observed.

Pilot

There was no pilot stage for this set of data collection since this method itself served as a probing tool.

3.3.2 Focus group

The next stage of data collection involved a focus group.

Powell (1996, 499) defines a focus group as:

> "group of individuals selected and assembled by researchers to discuss and comment on, from personal experience, the topic that is the subject of the research".

Focus groups are an excellent data collection technique for generating a research hypothesis that could be further researched via more quantitative techniques; for exploring the participants' perceptions, feelings, attitudes, beliefs and impressions about the researched phenomenon; generating impressions of products, services, etc (Stewart and Shamdasani, 1990, 15). Focus groups are also used in emergent designs to suggest the next steps in research (Pickard, 2007, 220).

Why focus group

The focus group data collection technique was selected for this research in order to perform more in-depth qualitative research, to generate theory that could be confirmed or rejected by further quantitative research. This approach is suitable for the mixed method sequential exploratory design, taxonomy model, as described in 3.1.

Focus groups have the following advantages:

- They require little time to be executed, 1-2 hours
- They are interactive, which can help discover a complexity of attitudes, beliefs, etc
- They are flexible, which offers immediate feedback and allows easy reflection on it
- They are transparent, as participants can see what is going on
- Participants can be observed
- They are open-ended and can allow adding new topics, which is good when the answers cannot be predicted (Gorman and Clayton, 2005, 147)
- They are ideal in supplementing other techniques
- They allow people to talk about the issues that matter to them
- They can provide a useful guide for further data collection (Pickard, 2007, 220).

Focus groups also have a few disadvantages:

- It is not always easy to find mutually convenient time for all participants
- It can be difficult to deal with dominating personalities
- They can be challenging for inexperienced moderators and researchers (Gorman and Clayton, 2005, 147).

An open- ended interview could be used instead of a focus group in this study. However, the researcher felt that using this data collection technique would not allow the participants to interact with each other and, most importantly, it would be much more time and resource consuming.

Pilot

The design of the focus group was based on the data collected from the blog. It was also piloted, as suggested by Krueger and Casey (2009, 59), with three ICBS alumni.

3.3.3 Questionnaire

In the mixed method sequential exploratory research design, quantitative methods of data collection should be employed in the last phase of data collection, after qualitative data are collected and analysed (Creswell and Plano, 2007, 110). In this study, an online questionnaire data collection technique was used. Questionnaires are:

> "a series of pre-determined questions that can be either self-administered, administered by email, or asked by interviewers" (Burns, 2000, 571).

Gillham (2007, 5) and Pickard (2007, 185) cite several advantages of questionnaires that are relevant to this study:

- They are cheap
- They make it easy to deal with many participants at the same time
- They can be anonymous
- They can be filled in when it is convenient for participants, who can return to them as many times as they feel is right for them
- They cannot be influenced by the researcher's bias.

They also cite some disadvantages:

- There could be a low response rate
- Data could be inaccurate
- They are impossible to monitor
- Questions have to be simple
- Participants cannot be observed

- Once they are sent, the questions cannot be changed.

In this study, however, the above disadvantages were not so evident since the questionnaire was used for generalising purposes within the case (Gillham, 2007, 9) and, as the audience was captive, the response rate was not a problem.

Why online questionnaire

An online, rather than postal, questionnaire was chosen as it is more practical to use it in terms of time (of the researcher and students involved), given also the number of the participants. Furthermore, students at the ICBS are used to dealing with online questionnaires. Finally, online questionnaires can be easily analysed, especially those that are based on closed questions.

Pilot

The design of the questionnaire was based on the outcomes of the focus group and shown to the focus group participants for approval as suggested by Pickard (2007, 90). It was next piloted with a small group of three ICBS alumni.

3.4 Sampling

The sampling frame for this study was ICBS current students.

3.4.1 Online ideation

According to the procedure for Exploratory Designs (Creswell and Plano, 2007, 123), people participating in the first phase of data collection should be different to those participating in the second phase since the purpose of the second phase (quantitative data collection) is to generalise the results to a population (in this study to the case population). Following this advice, for the online ideation data collection the purposive, maximum variation, method of sampling was used (Creswell and Plano, 2007, 112). Purposeful sampling involves choosing participants who can provide useful information. Students who used the CPDS the most were more likely to provide useful information for this study. To determine those who used the service the most, an automatically generated report was run via the online CPDS customer management system using the following criteria: current students who used the CPDS during their studies 5 times or more. Creswell and Plano (2007, 112) state that the idea behind the maximum variation sampling technique is that:

> "if participants are purposefully chosen to be different in the first place, then their views will reflect this difference and provide a good qualitative study".

Maximum variation was achieved here by manually selecting the participants from the generated report list using the following criteria: different programmes and countries, those with previous work experience and without, those who managed to secure a job offer and those who did not, and those who studied in the UK prior to the course and those who studied abroad. The final number was limited to 30 participants.

3.4.2 Focus group

For the focus group, purposive sampling, maximum variation, was also used involving the same report list and the same criteria. However, people who participated in the online ideation data collection were excluded from the participation in the focus group for the reasons described above. Invitations to participate in the focus group were sent to 15 students.

3.4.3 Questionnaires

To make the research manageable, within the timescale and resources available, a combination of purposive and convenience sampling was used for the online quantitative questionnaire (Pickard, 2007, 63-64). These methods have limitations in terms of the ability to generalise results, but their advantage is that they can provide a foundation for future research (Pickard, 2007, 63-64; Bryman, 2008, 183), which applies to the present study.

The questionnaire was open to 163 current students who used the service for five times and more and who were more likely to respond to the questionnaire within a short period of time due to the developed personal relationship with the service. Those who contributed to the blog and those who participated in the focus group were excluded from this stage of data collection for the reasons described earlier.

3.5 Data analysis methods

The mixed method sequential exploratory design, taxonomy model, employed in this study required the mixed methods sequential data analysis (Creswell and Plano, 2007, 128-166). The analysis consisted of two distinct phases: a qualitative followed by a quantitative. The qualitative data analysis was conducted first to identify important variables and then used to produce the quantitative data collection instrument to test the results that emerged from the qualitative research.

The qualitative phase analysis also consisted of two sub-phases: the analysis of the blog postings, used to develop the focus group instrument, and then the analysis of the data collected from the focus group.

3.5.1 Blog

The blog postings were carefully read through and used as a pool of ideas to inform the design of the focus group data collection instrument. The data were assessed with regard to relevance, usefulness and whether the participants could easily understand the questions. There were no formal data analysis techniques employed to analyse the blog.

3.5.2 Focus group

From the four methods of data analysis that are usually employed to analyse the data collected from focus groups, transcript-based, tape-based, note-based and memory-based (Krueger, 1998, 44-46), it was decided to use the tape-based method. The focus group data collection instrument was designed in such a way that it allowed the researcher to collect data written down by the participants (e.g. predesigned response cards) and by the researcher herself (e.g. using a flip chart for recording data) which was confirmed by the participants at the end of the focus group. The focus group data collection instrument is described in more detail in 4.1.2 and is available in Appendix 5. This approach eliminated the need for the very time consuming fully detailed transcription of the focus group recording. Consequently, an abridged handwritten transcript of the focus group was prepared after careful listening to the voice recordings. The transcript contained comments supporting the data provided by the participants in the response cards and the flip chart notes prepared by the researcher and verified by the participants. It was also checked for any additional data that could have been missed in the response cards and the flip chart notes.

The transcript, flip chart notes, response cards and the comments from the transcript were then analysed using the “long table, scissors and colour marking pens” technique suggested by Krueger (1998a, 57 - 59). The technique involves colouring, cutting, sorting and arranging the data to identify the categories. The process of analysis consisted of:

- Thorough reading of the transcripts, response cards and flipchart notes and taking notes of ideas, etc
- Defining the categories
- Reading of the transcripts, response cards and flipchart notes once more and colouring the relevant quotes in different colour according to the category
- Cutting the quotes and grouping them by colour
- Analysing each category and writing down a descriptive summary by category.

3.5.3 Questionnaire

The aim of the questionnaire in this study was to verify whether the findings from the focus group are supported by those from the questionnaire. Consequently, given the ordinal nature of the data, the respective data analysis was first performed automatically by Survey Monkey[2], an online survey software and questionnaire tool, on the basis of individual statements, whereby the rating averages were calculated for each statement (see Appendix 10). Then, the results were transferred into a Microsoft Excel spreadsheet for further analysis. More specifically, the statements were grouped by category (see Table 4 in 4.1.3) and an overall rating average was calculated for each one of the categories (see Appendix 11). The results from this analysis were then visualised with the aid of bar charts. Finally, the outcomes from the questionnaire were compared with the previous findings from the focus group (see Chapter 4 for more details).

3.6 Ethics

Aberystwyth University research ethics guidelines were used and consent was obtained from all participants, who were ensured confidentiality and anonymity would be preserved at all times (Aberystwyth University Ethical Review Committee, 2007).

The researcher discussed the subject of the research with and has been give permission to perform the research by the Imperial College Business School Careers Manager prior to conducting the study.

To ensure confidentiality and security, research data were kept in locked drawers accessible only by the researcher and in password protected spreadsheets stored on the researcher's personal password protected laptop, and access to the blog was also protected by password.

[2] http://www.surveymonkey.com/mp/aboutus/

In addition, the blog's privacy setting was set to "Private—by invitation only", which meant that it could be accessed only by the invited participants. Also, the participants were informed that they had the option of disguising their real names if they wished so. Anonymity was ensured by removing any identifiers while the participants were assigned a non-identifiable code name and the decoders were kept separately from the data. Furthermore, the participants were given the clear choice to opt out of the blog via unsubscribing. After finishing the research, the data were disposed by shredding and file deletion.

The relationships with the participants were based on trust and openness, and participants were asked whether they agree to participate in the research. They were also informed about all aspects of the research that might be expected to affect their willingness to participate and permissions were obtained from the participants, e.g. to include the anonymised transcripts of their comments in the dissertation and use audio recording to record the focus group. The invitations to participate in all three stages of the research contained the clearly described purpose of the study, which was also repeated in the questionnaire, the blog and verbally while conducting the focus group to avoid deception as suggested by (Creswell, 2009, 89).

In addition, all focus group participants were given the transcript of the focus group for verification to check whether they agree with the content.

3.7 Limitations

In this study, the mixed method sequential exploratory design within an instrumental case study was used, which consisted of two phases, qualitative followed by quantitative, as described in 3.1, 3.2 and 3.3. The qualitative data and their subsequent analysis helped explore the subject in question and identify important variables and the quantitative data and their subsequent analysis helped generalise and validate the outcomes from the qualitative phase within the case. However, due to the fact that a combination of purposive and convenience sampling was used for the online quantitative questionnaire, described in 3.4.3 the generalisation of results could be affected since the data from the research is not entirely representative within the case (Pickard, 2007, 63-64), e.g. because the opinions of students who used the service less than five times or not at all were not investigated. Nevertheless, the chosen methodology is appropriate for exploratory research such as this study to provide a foundation for future research which is one of the objectives for this research (Pickard, 2007, 87).

In addition, the fact that there was little empirical research relevant to this study described in the literature as shown in the previous chapter, posed a limitation as it was not possible to evaluate the findings within a wider perspective. However, this does not in any way diminish the value of the work since the study is exploratory.

3.8 Summary

This chapter provided an overview of the research design and strategy, the data collection and analysis techniques employed and the reasons for adopting them. Also, it included an outline of the study population and sampling, In addition, it presented an account of the ethical issues taken into consideration and the limitations of the study.

The following chapter presents the study results and their analysis and discusses the findings. It also describes the data collection instruments used in this research and gives an overview of the response rates.

4 Results, analysis and discussion

This chapter presents the study results and their analysis and discusses the findings. It also describes the data collection instruments used in this research and gives an overview of the response rates.

4.1 Data collection instruments

4.1.1 Blog

The researcher created a blog which remained open for two weeks between 10 and 24 August 2012. The link to the blog was sent to the participants via email with the introduction to the subject of the study, a confidentiality statement and an initial posting to initiate discussion (see Appendix 2). The researcher acted as a moderator by checking the blog daily and posting additional questions, depending on what turn the discussion took, to keep it alive and moving into the right direction. The blog was rather unstructured and served mainly the purpose of probing questions and assessing their appropriateness for use in the focus group. An example of a blog posting is presented in Appendix 3.

4.1.2 Focus group

The focus group took place on 29 August 2012. The invitation to participate was sent via email to the chosen sample, with the introduction to the subject of the research, a confidentiality statement and asking them whether they agree that a voice recorder be used to record the focus group (see Appendix 4).

The initial data gathered via the blog, were used for the focus group data collection instrument design, as described previously. The protocol for organising and running focus groups suggested by Pickard (2007, 221) was followed and the focus group data collection instrument (see Appendix 5) was designed according to Krueger's advice, (1998b). This approach helped minimise the influence of the researcher's relatively modest experience in running focus groups and maximise the chances for its successful execution.

To record the focus group, an iPod nano, generation 5, was used as a recording tool. It was chosen among other recording tools because it has excellent quality of playback sound and also because the voice recording files could be easily handled with standard software available on a MacBook Pro laptop computer used by the researcher.

4.1.3 Questionnaire

Survey Monkey, an online survey software and questionnaire tool, (see 3.5.3) was used for designing the questionnaire. An email with the link to the online questionnaire (see Appendix 6), which was open for two weeks, was sent out on 3 September 2012 to the chosen sample. One week later, a second email was also sent to remind the participants to fill in the questionnaire. A copy of the final questionnaire can be seen in Appendix 7.

Since the questionnaire was intended as a quantitative data collection instrument, with the aim to verify whether the findings from the focus group were supported by those from the questionnaire, only closed questions were used for its design. Quantitative questionnaires are a suitable technique for testing the results that emerge from the qualitative phase in mixed methods exploratory research (Creswell and Plano, 2007, 128-166). A Likert scale was employed in all questions to capture the respondents' attitudes (Pickard, 2007, 187). The Likert scale is a bipolar scaling technique which lets the participants choose the answer that best represents the level of their agreement or disagreement with a particular statement. This scale has an inherent order which means that it estimates not only the agreement or disagreement with the statement but also the respective intensity in comparison to other respondents (Bryman, 2008, p. 147), which is the aim of the quantitative phase of this study.

The statements were arranged randomly, mixing positive and negative ones, in this way preventing the participants from choosing the same answer for all statements as advised by Bryman (2008, p. 147). In more detail, the questionnaire consisted of twelve statements. The statements were constructed based on the six categories that emerged from the focus group data analysis, described in 4.3.1, to test the validity of each category within the case. For each category one positive and one negative statement were devised as shown in Table 4. Dictionary definitions of the key category terms were used to aid the design of the statements. For example, the negative statement for the "Increase of efficiency" category, where "efficiency" is the key term (see 4.4 for the definition used), was phrased as follows: "It takes considerable effort to locate the needed information and to learn how to use the information communication tools". This statement implies that if the needed information is easily located and if it takes little effort for customers to learn how to use the information communication tools provided, the customer efficiency would increase. Since the statement is expressed in a negative way, if a respondent chooses the answer option "Strongly disagree" for example, this actually would suggest their strong agreement to the fact that the described process has increased their efficiency, whereas choosing the answer option “Strongly agree” would mean that the process has decreased their efficiency.

Table 4: Allocation of the statements to the categories

Categories	Statement number	
	Positive	**Negative**
Increase of knowledge base	1	12
Increase of competence	3	10
Increase of confidence	5	8
Increase of efficiency	7	4
Increase of convenience	9	4
Widening of perspective	11	2

4.2 Response rate

From 30 people who were invited to contribute to the blog, 22 replied. 6 people commented only once, 14 from 2 to 5 times and the remaining 2 from 5 to 10 times.

4.2.1 Focus group

Out of 15 people who were sent invitations, 6 people agreed to participate in the focus group. However, 2 of them cancelled at the last minute, as they could not attend on the scheduled date. Consequently, the final number of participants was 4.

4.2.2 Questionnaire

Out of 163 invitations to respond to the questionnaire 54 replies were received in the first week and 32 more following a reminder. This amounts to a total of 86 responses corresponding to a response rate of 52.8 %.

4.3 Blog results and analysis

Taking into account the fact that at the time of conducting this research there were no similar studies on the subject available in literature, collecting data via the blog allowed exploring people’s experiences, opinions, impressions and attitudes in an interactive way and at the same time it provided initial useful information for designing the focus group data collection instrument. It soon emerged that the participants should be constantly reminded that the subject of the research was the information and information communication channels provided by the Careers Service and not the Careers Service in general. This led to the introduction of the response cards (see Appendix 5) in which the information communication channels currently used by the service were listed. Another finding was that the term "How the information and information communication channels provided by the Careers Service contributed to your career related value creation process?" was not easily understood by the participants. This led to the decision to paraphrase this as "How the information and information communication channels provided by the Careers Service helped you to achieve your career specific goals?".

4.4 Focus group results and analysis

The main categories derived from the focus group data analysis indicated that the provided information and information provision channels offered by the Careers Service contribute to the customer value creation process by increasing customer knowledge base, competence, confidence, efficiency, convenience and by widening customer perspective. An example of the analysis is included in Appendix 8 and the category colour coding guide in Appendix 9. The results shown below are discussed according to these categories. In their support, the empirical data are presented in the form of quotations originating from the focus group.

4.4.1 Increase of knowledge base

According to Oxford Dictionary of English Online (2010) knowledge is defined as:

> "facts, information, and skills acquired through experience or education; the theoretical or practical understanding of a subject",

and knowledge base is:

> "a store of information or data that is available to draw on".

The contribution of the information to the increase of student knowledge base was evident throughout the focus group. All four participants described numerous occasions when information offered by the Careers Service helped them learn new things and better understand some others, and obtain new or hone already existing skills:

> The Careers Module [available via Blackboard] for me was pretty much straight forward to complete. Every single step was packed with information and if I got stuck, I could always check how to do things (Participant 1);

> Every time I need to learn about a company I am about to apply to, I go online and download the company's report from Hoover's [a directory of businesses] and study it

> till I have a good understanding of what it does, what values it has, how big it is and so on. This helps me to understand what they are looking for, whether I would like to work for them and to make good applications (Participant 4).

4.4.2 Increase of competence

The information provided by the Careers Service contributed to the increase of student confidence. According to Macmillan English Dictionary for Advanced Learners (2006, 280) competence is:

> "the ability to do something in a satisfactory or effective way".

The below statements illustrate that the student ability to do things relevant to their careers was enhanced by the information provided by the Careers Service:

> Last Christmas, when the College was closed for holidays, I received an invitation for interview. You know how it works in business – they never have holidays in some places. They gave me only three days' notice. I never bothered myself to learn finding stuff, because I knew that I could always ask you guys [referring to the Careers Service staff]. Unfortunately, this time the College was closed for Christmas and nobody was here. So, to cut the story short, when I went to the interview I felt completely out of my waters, I didn't know how to answer questions. Needless to say that I didn't get through to the next stage (Participant 1);

> You have to book an appointment to see a Careers Consultant and it is not always possible when you need it. Information, on the other hand, in this place [the Careers Service] is available 24/7 and, because I like doing things by myself, it helps me a lot, starting from finding job adds on the Careers Hub and devising CVs to preparing for interviews and assessment centres (Participant 3).

4.4.3 Increase of confidence

Confidence is defined as:

> "the belief that one is able to do things well" (Macmillan English Dictionary for Advanced Learners, 2006, 289).

The following statement, for example, shows that student confidence increases due to the use of the information provided by the Careers Service:

> I did two internships before I came to study here, but I still go through relevant sections of the webpage before attending an interview. It helps me to do a reality check and sharpen anything I managed to forget (Participant 3).

On the other hand, confidence is also defined as:

> “the feeling or belief that one can have faith in or rely on someone or something” (Oxford Dictionary of English Online, 2010).

Following this definition, if the information obtained from the Careers Service could be trusted, it increases one’s confidence. The below statement points out to this:

> Once I applied somewhere I found on the web. I remember it looked too good to be true. I got a reply from them very quickly. Knowing that sometimes we have to wait for a long time to receive a reply, I remember thinking they were very efficient. It turned out to be a fraud! Since then, I never search for jobs on the Internet. I always check The Careers Hub and the email bulletins that you [the Careers Service] send to us for new job postings [...] (Participant 2).

4.4.4 Increase of efficiency

Efficiency is defined as:

> “the ability to work well and produce good results by using the available time, money, supplies, etc in the most effective way” (Macmillan English Dictionary for Advanced Learners, 2006, 445).

This means that increase of efficiency could occur if students can use information resources and information provision channels in the way that works for them best. The following two statements are very different, but they both show that the information and information provision channels contributed to the increase of efficiency of both students:

> I like using the Careers Resources Room. There are so many books with various tests there. I knew that at some point I would have to do one test or another. So I used to go there at my convenience and practice. Having computers there is also helpful as you could do online tests too [...] and it is quiet there unlike in my flat (Participant 3);

> Don’t get me wrong, but for me it is better if somebody shows me how to do things in person, or even better attaches some relevant files to an email and sends them to me. Why do I have to waste hours of my time if a professional can do it in two seconds? (Participant 2).

4.4.5 Increase of convenience

Macmillan English Dictionary for Advanced Learners (2006, 304) defines convenience as:

> “a condition that helps you to avoid wasting time or effort”.

> I think that having the Careers Service, including the information provided, on campus is excellent. I am not sure I can separate the information you [the Careers Service] provide from the rest of what you do. In my opinion, even what the consultants tell us is still information, isn’t it? Anyway, having such a service and being able to find the

> information needed quickly saves me time and effort. I can concentrate more on my studies (Participant 4).
>
> Speaking about time, it is great to have all Careers [the Careers Service] presentations, past interviews and so on online. It is so convenient (Participant 1).

The above statements clearly indicate that the information and information provision channels contribute to the increase of customer convenience.

4.4.6 Widening of customer perspective

Perspective is defined as:

> "a sensible way of judging how good, bad, important, etc something is in comparison with other things" (Macmillan English Dictionary for Advanced Learners, 2006, 1057).

The following statements show that, after using the information provided by the Careers Service, students' judging ability has increased:

> I also use "10 minutes with" [an educational electronic careers resource] a lot. It is great! They have real people there, who achieved a lot, talking about how they got there. I learn from them what routes I could personally follow to become something. I am still not sure what my dream career would be, so I need to be able to compare and contrast (Participant 1);
>
> I liked the Blackboard Module too. That exercise about your strengths and weaknesses made me realise that there are a lot of interesting jobs out there. Before I thought that I would become a consultant just because it sounded cool. It [the Blackboard Careers Module] made me be a little bit more open minded. I learn whenever I can about various jobs. I compare them and contrast and check how much they suit my personality (Participant 3).

4.5 Questionnaire results and analysis

Through analysing the questionnaire results, it is sought to confirm whether or not the findings from the focus group hold true. As the questionnaire contains both positive and negative statements, the appropriate way to judge this is by looking into the average magnitudes of the ratings which are returned by the analysis (Pickard, 2007, 251 - 276). This is because the rating scale values (1, 2, 3, 4, 5) were chosen to correspond to the five possible responses (strongly agree, agree, undecided, disagree, strongly disagree) with ascending or descending order, depending on the particular statement being negative or positive respectively. As a consequence of this weighing, the magnitude of the average rating for each statement is consistent irrespective of the statement being positive or negative. Furthermore, this method of analysis permits the calculation of the mean value of the rating averages within each category. It is this mean value of the rating averages within each category which is taken as the measure by which to judge if the categories arising from the focus group are consistent with the questionnaire findings. More specifically, the median scale value of 3 is considered as the threshold for this decision and any category returning a mean rating average larger than 3 would be considered as being consistent with the focus group results.

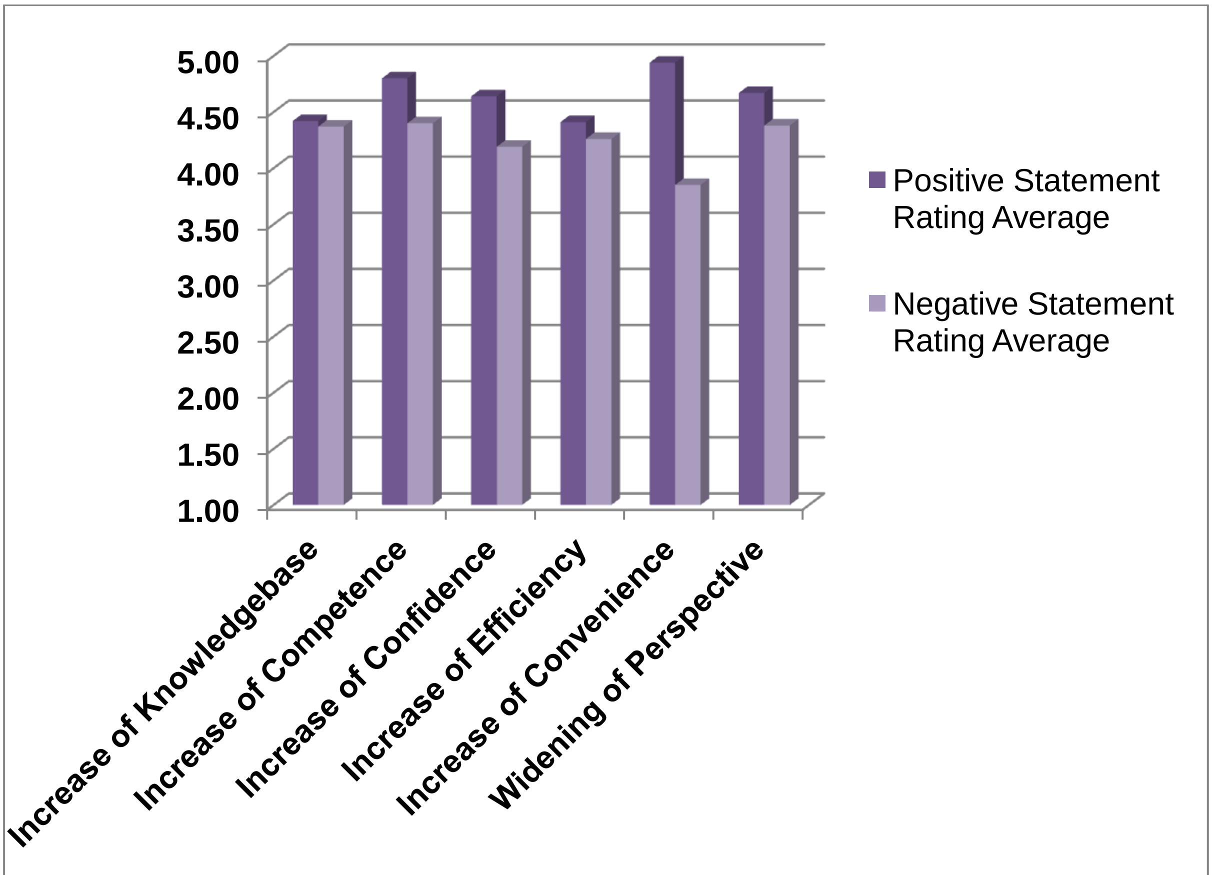

Figure 1: Rating averages for the positive and negative questionnaire statements corresponding to each category as resulted from the questionnaire

The questionnaire results were analysed according to the procedure described above. The chart of Figure 1 shows the rating averages for both the positive and the negative statement of each category. The chart of Figure 2 shows the mean value of the rating averages for each category, which results by averaging the respective positive and negative statement ratings. It is observed that the calculated mean rating averages for all categories have values well in excess of the threshold value of 3, as can be seen in Figure 2. Therefore, one can safely conclude that the questionnaire quantitative results confirm and validate the findings from the focus group within the case.

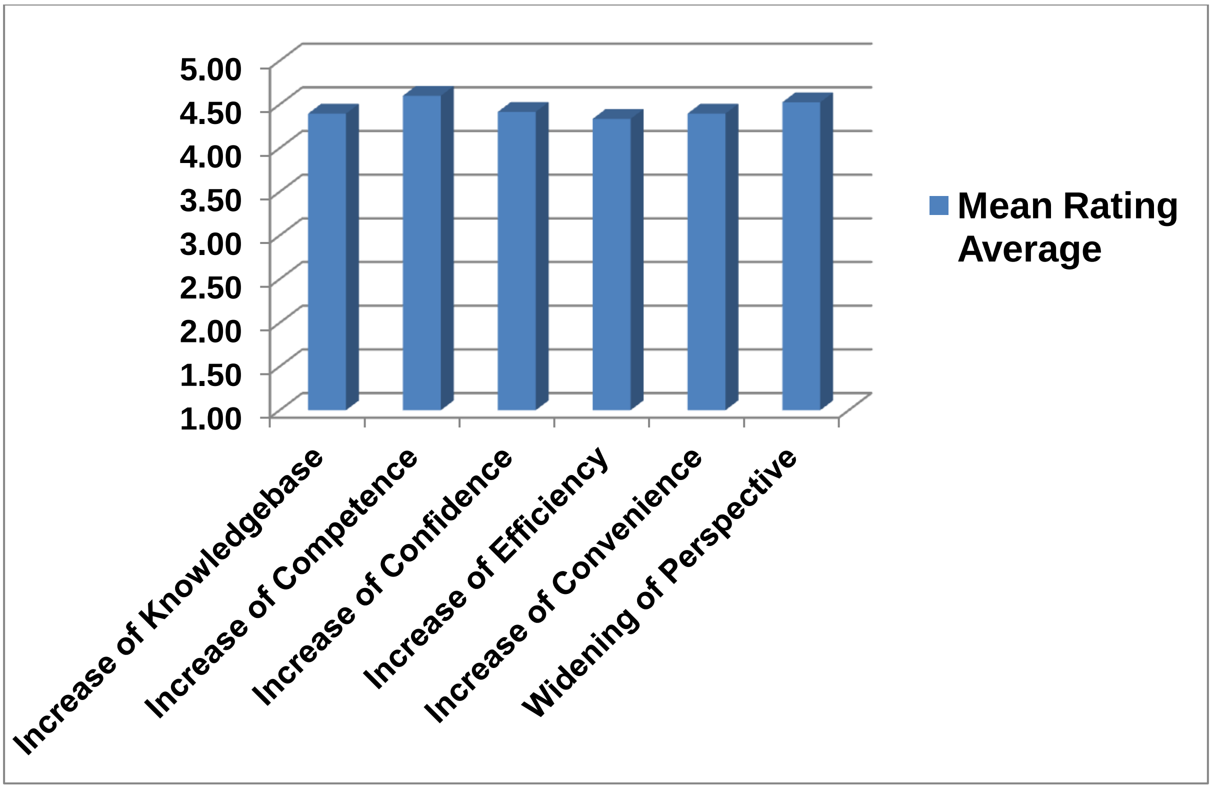

Figure 2: Mean rating average corresponding to each category as resulted from the questionnaire

4.6 Discussion

Due to the nature of the service, information and information provision channels play a crucial role in the customer value creation in HE Careers Services. More specifically, within the setting of the present case, the information provided typically includes (but is not limited to) guidance on CV, cover letter and job applications writing and preparation for job interviews (e.g. fact sheets with tips; links to relevant electronic information resources useful for preparation for numerical/psychometric tests, different types of interviews, assessment centres, etc); e-news bulletins with job postings and workshops and employer presentations advertisements; one-to-one and group training sessions (e.g. on how to find needed information); etc. All this information, which is available in multiple formats (online, print, video, one-to-one, etc) is typically delivered via information channels which include: the Blackboard Careers Module (a virtual learning environment), Information/Training Sessions, the Careers Service Webpage, the Careers Hub (an online Careers portal), in-person and email consultations, electronic bulletins, and Careers Resources Library.

ICBS Careers Service customers, in order to achieve their goals, organise their tasks and activities around these offerings and are heavily involved in direct and indirect interactions with the Careers Service.

Therefore, the findings of the present research should be seen through a perspective which is wide enough and inclusive of these facts. In other words, the study of customer value creation and co-creation should also take into account customer activities and experiences to better understand how service providers can contribute to their value creation and co-creation processes. A framework, developed by Grönroos and Voima (2012), discussed in detail in 2.3, offers an appropriate platform for assessing the findings arising from the present study. It also introduces a structure in how value-in-use emerges and how direct and/or indirect interactions between providers and customers can lead to value creation and value co-creation opportunities. This framework presents the most consistent description in the literature to date of the customer and service provider roles with regard to value creation and co-creation in provider, joint and customer spheres.

Seen in this perspective, the six customer value manifestations that emerged from this research, fit naturally within this framework and associated direct and indirect interactions (see Table 3, in 2.3 for more details). As an example, the statement:

> For me, the best thing about it [the Blackboard Careers Module] was that it helped me prepare a good CV well in advance before I started the course. So I didn't have to waste my time when the term started (Participant 4)

indicates that the availability of the information in the particular format contributed to the customers value creation process by increasing their efficiency. This also raises some questions for the service providers: Do all the students feel the same way? If not, what could we do to increase their efficiency too?

Furthermore, in the context of the value creation spheres framework, one can visualise that this increase of efficiency, which amounts to value-in-use through independent value creation, was made possible via direct interaction of the customer with the provider resources, during a procedure that can be clearly located within the customer sphere.

One should also note that the concept of customer value destruction can be also accommodated within this perspective, leading to a more complete treatment of value creation, whereby the service provider will be aided to improve services and/or facilitate interactions to lessen value destruction. Instances of potential value destruction became evident during the course of the present research, for example:

> [...] I think it [the Blackboard Careers Module] shouldn't be compulsory. One of my friends wants to set up a company. He doesn't need to know about CVs or cver letters. It is waste of time for him basically. What he needs is to find information on how to go about setting up a company straight away (Participant 4).

In this case, the student might have avoided using the service only because he/she did not need the provided information and training; and because it was compulsory to undertake the module in order to be able to use the service. In this instance, the service providers might raise the following questions: Is it really necessary for the Blackboard Careers Module to be compulsory? Maybe in this way we destroy value for some customers that have different career goals? What could we do change this?

The conclusion that can be drawn by analysing the examples arising from the present work is that the framework of value creation spheres, put together with manifestations of customer value creation within a given setting, like the six categories found during the present research, could form the basis for discovering specific interactions and operand and operant resources integration that aid value creation and co-creation.

4.7 Summary

This chapter described the data collection instruments used in this research and gave an overview of the response rates. It also presented the study results and their analysis and discussion. More specifically, data collection was implemented in three phases, starting with a blog for probing questions and assessing their appropriateness for subsequent use in a focus group. Data analysis from the focus group itself indicated that the provided information and information provision channels offered by the Careers Service contribute to the customer value creation process in the following ways: they increase customer knowledge base, competence, confidence, efficiency, convenience and widen customer perspective. Following this, quantitative data analysis from a questionnaire, which was developed based on the outcomes of the focus group, confirmed the findings of the focus group within the case, returning rating averages well in excess of the threshold value for each one of the above mentioned six ways of contribution. Finally, these findings were discussed in a wider perspective taking into account relevant customer activities and interactions that aid value creation and co-creation.

The following chapter summarises the research process and findings, considers the transferability of the findings to similar settings, gives an account of the lessons learned and provides ideas for further research.

5 Conclusion

5.1 Introduction

The present research aimed to increase the understanding of the role that information and information provision channels play in customer value creation process within the HE Career Service environment and the purpose of this research was to investigate customer opinions, experiences and impressions of how information and information channels offered by the service contribute to the customer value creation process. In order to fulfil the aim, this study sought to answer the following research question: How do information and information provision channels offered by the ICBS Careers Service contribute to the student value creation process?

The present chapter reviews whether this study fulfilled its aim and purpose, and met the objectives. It also summarises the research process and findings, considers the transferability of the findings to similar settings, gives an account of the lessons learned and provides insight for further research.

5.2 Objectives

The specific research objectives of this study were to:

- Establish through literature review whether:
    - the concepts of SDL, customer value creation and value co-creation are relevant within the specific setting
    - the education industry could be seen as a service
    - the concept of student as a customer is a valid one
- Identify specific manifestations of the contribution of the information and information provision channels offered by the Careers Service to the student value creation process via qualitative research
- Test the results that emerged from the qualitative research via quantitative research
- Examine transferability of the findings to similar settings and propose ideas for future research.

5.3 Literature review

Performing the literature search for this study proved to be challenging as the subject of the research spreads over a number of disciplines, and also because some of the relevant areas were heavily under-researched at the time of conducting the study. Using snowball/chaining, interactive scanning and the “berry picking” methods, although laborious and time consuming, proved to be the most suitable methods in the knowledge consolidating task for this study.

The literature review focused on the following concepts relevant to the impact of information on customer value creation process in the HE Careers Service setting: SDL, value creation and value co-creation; education as service; students as customers, and; information in career guidance.

The literature review revealed that:

- The SDL concept is applicable to all organisations, including HE institutions and Career Services within them
- The value creation and co-creation concepts are relevant within the HE Career Services environment
- Students should be viewed as customers
- The education industry, including HE, is a service
- Career Services play an important role in the student experience, and information is vital in the customer value creation process.

The literature review conducted did not find any instances where information and information provision channels were studied with respect to their role in customer value creation process within the HE Careers Service environment. This revealed a clear need for empirical research on the subject that could serve as a starting point for further investigation on these matters.

The above contributions amount to the fulfilment of the first research objective.

5.4 Methodology

Given the exploratory nature of the research, the mixed method sequential exploratory design, taxonomy model, was adopted, which consisted of two distinct phases, a qualitative and a quantitative one. The research strategy employed, combined an instrumental case study and a survey. The case study element involved using an online ideation in the form of a blog, and a focus group. The survey element involved using a quantitative data collection technique in the form of an online questionnaire with closed questions. The lack of empirical research examples in the literature relevant to this study, which could have served as a base for developing credible data collection instruments, necessitated the building of such instruments from scratch, during both the qualitative and quantitative phases. For this reason, during the first phase of the study, the data were collected via blog first and then used to inform the design of the focus group data collection instrument. Then, the focus group data were collected and analysed to identify important variables and then to produce a questionnaire to test the results that emerged from the focus group.

5.5 Results

The qualitative research conducted within the case identified specific manifestations of the contribution of information and information provision channels offered by the service to the student value creation process. These findings were subsequently quantitatively validated within the case. By acquiring these data and validating the findings, the third and fourth objectives of the present research were met.

In more detail, data collection was implemented in three phases, starting with a blog for probing questions and assessing their appropriateness for subsequent use in a focus group. Data analysis from the focus group itself indicated that the provided information and information provision channels offered by the Career Service contribute to the customer value creation process in the following ways: they increase customer knowledge base, competence, confidence, efficiency, convenience and widen customer perspective. Finally, quantitative data analysis from a questionnaire, which was developed based on the outcomes of the focus group, confirmed the findings of the focus group within the case, returning rating averages well in excess of the threshold value for each one of the above mentioned six ways of contribution.

5.5.1 Data validity and reliability

The data validity and reliability has to be assessed by taking into account both the qualitative orientation of the research and the limitations that were present when delivering this work. In this context, every effort was made to probe the widest variety of views possible within the samples, during three separate phases that involved different individuals, according to established practices. This was the best the author could practically achieve in the circumstances of the case and the data collected are therefore considered to be valid and reliable.

The questionnaire response rate (52.8 %) is valid in the sense that the number of responses received was more than adequate to have represented the target sample of customers who were initially selected based on meeting the specific criteria set out in 3.4.1. Furthermore, evidence in the recent literature suggests that much higher nonresponse rates have not been found to affect the validity of the findings, for example in a comparative study by Keeter et al (2006), who reported that the two surveys being compared, with significantly different response rates, yielded results that were statistically indistinguishable. Nevertheless, it remains a fact the target sample of the study is not itself representative of the case as a whole.

5.5.2 Transferability of findings

A main observation in relation to the transferability of the findings arising from the present study is the fact that all probing methods employed, namely, the online ideation in the form of blog/s, the execution of focus group/s and the survey via questionnaire/s, are all scalable and can be adapted to the specific characteristics of the setting, with the capacity to reach wide and diverse audiences, if needed. On the other hand, they can provide diversity within a limited audience.

Also, due to limitations arising from the combination of purposive and convenience sampling used in the quantitative questionnaire, the data might not be entirely representative within the case, e.g. because the attitudes, experiences and opinions of students who used the service less than five times or not at all were not investigated as well as other groups of customers, e.g. alumni and prospective students with study offers. Nevertheless, despite any such limitations, the chosen methodology is deemed suitable for providing a foundation for future research, which is the last objective of the present work.

5.6 Lessons learned

The methodology employed in this research proved to be successful. However, the following points should be taken into account if the research is to be replicated. On the one hand, the qualitative data and their subsequent analysis helped exploring the subject in question and identifying important variables while the quantitative data and their subsequent analysis helped generalising and validating the outcomes from the qualitative phase within the case. On the other hand, the challenge was to identify which qualitative findings were relevant and appropriate to use further.

In addition, the fact that there was little empirical research relevant to this study in the literature at the time the study was conducted, posed a limitation as it was not possible to evaluate the findings within a wider perspective. It is also conceivable that differently expressed questionnaire statements could have been devised, possibly leading to more reliable results. This could be tested if other researchers decide to use different statements in a similar study and then compare the outcomes with the present study. However, this does not diminish the value of the work since the study was conducted for exploratory purposes and to initiate further research.

Furthermore, because of the phased design, while it was easy to prepare, implement and report, it was also time consuming to collect and analyse the data. Consequently, researchers undertaking similar research should allow sufficient time for data collection and analysis. Also, while the audience in the HE environment is captive and are familiar to research projects themselves, which means that they are rather willing to contribute, it should be taken into account that in HE (especially when students undertake one-year courses) the timing relative to the academic year for conducting empirical research is crucial and should be chosen carefully to ensure high response rates. For example, in the case of this study, it would have been better to perform it in February or March when the students would be familiar enough with the Career Service and less busy with their studies.

Taking into account the fact that at the time of conducting this research there were no similar studies on the subject available in the literature, using preliminary data collection via a blog proved to be successful, as it provided initial useful information for designing the focus group data collection instrument. Collecting data via blog allowed exploring people’s attitudes, experiences, impressions and opinions in an interactive way, and at the same time, allowing amendments to be made without unnecessary fear of failure and disruption to the research.

Last but not least, while conducting the focus group, the researcher did not make use of a moderator assistant as she could not find an appropriate person, and the focus group was run by a moderator only (the researcher herself). However, a careful planning of the focus group data collection instrument with use of response cards and flipchart notes and of voice recording, helped execute a successful focus group. Also, it would have been preferable if the number of the focus group participants was greater than four, e.g. six to eight.

Examining the transferability of the findings arising from the present study is one the research objectives and is also a matter of great interest for any researcher/practitioner who will be interested in applying the methods used here in a similar setting. The lessons learned, in combination with the present study itself, could serve as a field guide for such an undertaking. Furthermore, an important observation in relation to this matter is the fact that all probing methods employed, namely, the online ideation in the form of blog/s, the execution of focus group/s and the survey via questionnaire/s, are all scalable and can be adapted to the specific characteristics of the setting, with the capacity to reach wide and diverse audiences, if needed. On the other hand, they are capable of probing diversity within a limited audience.

5.7 Ideas for further research

This was a small case study conducted in the Careers Service of one Department within a University. It would, therefore, be useful to conduct this study in other University Careers Services and then compare the findings. It would also be appropriate to conduct similar studies with groups of customers that were excluded from the present study, more specifically, alumni, prospective students and, importantly, those who do not make use of the service. It would be of interest to also study the concept of value destruction in the same context, as it became evident during the course of the research that this was likely to occur. However, it was not investigated in greater detail as it was out of the research scope.

5.8 Summary

The empirical study conducted contributes to the understanding of the role that information and information provision channels play in the customer value creation process within the HE Career Service environment, having investigated customer opinions, experiences and impressions within a specific case setting. It has identified specific manifestations of value creation in this context and, despite its small scale, is transferable and it could form the basis for further research in the area, where there seems to exist a clear gap in the literature. Additionally, the outcomes of the study have implications on the Career Guidance and Information Sciences fields.

References/Bibliography

Aberystwyth University Ethical Review Committee. (2007) *Ethics Committee for Research Procedures: Template for Research Involving Human Tissue or Participants* [Online] Aberystwyth: Aberystwyth University Ethical Review Committee. Available from: http://www.aber.ac.uk/en/media/template-for-research-involving-human-tissue-or-participants.pdf [Accessed: 27 July 2012].

Acevedo, A. (2011) Business ethics 101: The student is not a customer. *International Journal of Management Education.* [Online] 9 (3), 1–11. Available from: http://www.heacademy.ac.uk/assets/bmaf/documents/publications/IJME/Vol9no3/346IJMEb.pdf [Accessed: 25 July 2012].

Achrol, R.and Kotler, P. (2006) The service-dominant logic for marketing: A critique. In: Lusch, R. and Vargo, S. (eds.) *The Service-Dominant Logic of Marketing: Dialog, Debate, and Directions*, Armonk, M.E. Sharpe, pp. 320-333.

Babin, B. and James, K. (2010) A brief retrospective and introspective on value. *European Business Review*. [Online] 22 (5), 471-8. Available from: http://www.emeraldinsight.com/journals.htm?articleid=1881324 [Accessed: 28 July 2012].

Baldwin, G. (1994) The student as customer: The discourse of 'quality' in higher education. *Journal of Tertiary Educational Administration*. [Online] 16 (1) 125–33. Available from: http://www.tandfonline.com/doi/abs/10.1080/1036970940160110 [Accessed: 7 August 2012].

Bay, D. and Daniel, H. (2001) The student is not the customer – an alternative perspective. *Journal of Marketing for Higher Education*, [Online] 11, 1–19. Available from: http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=EJ652422&ERICExtSearch_SearchType_0=no&accno=EJ652422 [Accessed: 6 August 2012].

Beaty, L. et al. (2005) Learning orientations and study contracts. In: Marton, F., Hounsell, D. and Entwistle, N. (eds.) *The Experience of Learning: Implications for Teaching and Studying in Higher Education*. (3rd edition) [e-book] Edinburgh, University of Edinburgh, Centre for

Teaching, Learning and Assessment. Available from: http://www.tla.ed.ac.uk/resources/EoL.html [Accessed: 7 August 2012].

Biggam, J. (2011) *Succeeding with your Master's Dissertation: A Step-by-step Handbook,* (2nd edition). Berkshire, Open University Press.

Binsardi, A. and Ekwulugo, F. (2003) International marketing of British education and research on student perception and the UK market penetration. *Marketing Intelligence and Planning*, [Online] 25 (5), 318-327. Available from: http://dx.doi.org/10.1108/02634500310490265 [Accessed: 7 August 2012].

Blazevic, V. and Lievens, A. (2008) Managing innovation through customer coproduced knowledge in electronic services: an exploratory study, *Journal of the Academy of Marketing Science*, [Online] 36 (1), 138-151. Available from: http://www.springerlink.com/content/w73624547u858x44/ [Accessed: 7 August 2012].

Booth, A. (2008) Unpicking your literature search toolbox: on search styles and tactics. *Health Information and Libraries Journal,* [Online] 25 (4), 313-317. Available from: http://onlinelibrary.wiley.com/doi/10.1111/j.1471-1842.2008.00825.x/pdf [Accessed: 7 August 2012].

Bowden, J. and D'Alessandro, S. (2011) Co-creating value in Higher Education: The role of interactive classroom response technologies, *Asian Social Science*, [Online] 7 (11), Available from: http://dx.doi.org/10.5539/ass.v7n11p35 [Accessed: 7 August 2012].

Brodie, R., Pels, J. and Saren, M. (2006) From goods- toward service-centered marketing: dangerous dichotomy or an emerging dominant logic? In: Lusch, R. and Vargo, S., (eds.) *The Service-Dominant Logic of Marketing: Dialog, Debate, and Directions*, Armonk, M.E. Sharpe, pp. 307-319.

Brown, S. (2009) Harry Potter and the service-dominant logic of marketing: A cautionary tale. *Journal of Marketing Management,* [Online] 25(5-6), 519-533. Available from: http://www.tandfonline.com/doi/abs/10.1362/026725709X461830 [Accessed: 7 August 2012].

Bryman, A. (2008) *Social Research Methods*, (3rd edition). Oxford, Oxford University Press.

Burns, R. (2000) *Introduction to Research Methods*, (4th edition). London, Sage.

Chandler, J., and Vargo, S. (2011) Contextualization and value-in-context: how context frames exchange. *Marketing Theory*, [Online] 11 (1), 35–49. Available from: http://mtq.sagepub.com/content/11/1/35.abstract [Accessed: 7 August 2012].

Clewes, D. (2003). A student-centred conceptual model of service quality in higher education. *Quality in Higher Education,* [Online] 9 (1), 69-85. Available from: http://dx.doi.org/10.1080/13538320308163 [Accessed: 7 August 2012].

Creswell, J. (2009) *Research Design,* (3rd edition). London, Sage.

Desai, P. (2002) *Methods Beyond Interviewing in Qualitative Market Research*. London, Sage.

Edvardsson, B., Tronvoll, B., and Gruber, T. (2011) Expanding understanding of service exchange and value co-creation: A social construction approach. *Journal of the Academy of Marketing Science,* [Online] 39 (2), 327–339. Available from: http://www.deepdyve.com/lp/springer-journals/expanding-understanding-of-service-exchange-and-value-co-creation-a-yxZE0LtK08 [Accessed: 7 August 2012].

Eisenhardt, K. (1989) Building theories from case study research. *Academy of Management Review*, [Online] 14 (4), 532-550. Available from: http://www.jstor.org/discover/10.2307/258557?uid=3738032&uid=2129&uid=2&uid=70&uid=4&sid=21101185036367 [Accessed: 7 August 2012].

Epp, A. and Price, L. (2011) Designing solutions around customer network identity goals. *Journal of Marketing*, [Online] 75 (2), 36–54. Available from: http://www.emeraldinsight.com/bibliographic_databases.htm?id=1920973 [Accessed: 7 August 2012].

Fink, A. (2003a) *How to Ask Survey Questions*, (2nd edition). London, Sage.

Fink, A. (2003b) *How to Design Survey Studies,* (2nd edition). London, Sage.

Fink, A. (2003d) *The Survey Handbook,* (2nd edition). London: Sage.

Gillham, B. (2007) *Developing a Questionnaire*, (2nd edition). London, Continuum.

Gorman, J. and Clayton, P. (2005) *Qualitative Research for the Information Professionals: A Practical Handbook,* (2nd edition). London, Facet Publishing.

Grönroos, C. and Helle, P. (2010) Adopting a service logic in manufacturing: Conceptual foundation and metrics for mutual value creation. *Journal of Service Management*, [Online] 21 (5), 564–590. Available from: http://www.emeraldinsight.com/journals.htm?articleid=1891195 [Accessed: 7 August 2012].

Grönroos, C. and Voima, P. (2012) Critical service logic: Making sense of value creation and co-creation. *Journal of the Academy of Marketing Science*, [Online] Available from: http://dx.doi.org/10.1007/s11747-012-0308-3 [Accessed: 7 August 2012].

Grubb, N. (2002) Who I am: The inadequacy of career information in the information age. *OECD Career Guidance Policy Review,* [Online] Paris, OECD. Available from: www.oecd.org/edu/careerguidance [Accessed: 18 August 2012].

Gross, M. and Hogler, R. (2005) What the shadow knows: Exploring the hidden dimensions of the consumer metaphor in management education. *Journal of Management Education*, [Online] 29, 3–16. Available from: http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=EJ797963&ERICExtSearch_SearchType_0=no&accno=EJ797963 [Accessed: 18 August 2012].

Gummesson, E. and Mele, C. (2010) Marketing as value co-creation through network interaction and resource integration, *Journal of Business Market Management*, [Online] 4, 181–198. Available from: http://www.springerlink.com/content/v7r1535qq2wx3817/ [Accessed: 18 August 2012].

Hart, C. (1998) *Doing a Literature Review: Releasing the Social Science Research Imagination.* London, SAGE.

Heinonen, K., and Strandvik, T. (2009) Monitoring value-in-use of e-service. *Journal of Service Management*, [Online] 20 (1), 33–51. Available from: http://www.emeraldinsight.com/journals.htm?articleid=1775055 [Accessed: 18 August 2012].

Helkkula, A., Kelleher, C., and Pihlström, M. (2012) Characterizing value as an experience: Implications for service researchers and managers. *Journal of Service Research*, [Online] 15 (1), 59–75. Available from: http://jsr.sagepub.com/content/early/2012/01/06/1094670511426897.abstract?rss=1 [Accessed: 18 August 2012].

Hemsley-Brown, J. and Oplatka, I. (2006) Universities in a competitive global marketplace: A systematic review of the literature on Higher Education marketing. *International Journal of Public Sector Management*, [Online] 19(4), 316-338. Available from: http://dx.doi.org/10.1108/09513550610669176 [Accessed: 18 August 2012].

Higher Education Funding Council for England. (2011) *Funding for Universities and Colleges for 2010-11 and 2011-12*. [Online] Available from: http://www.hefce.ac.uk/pubs/circlets/2011/cl05_11/cl05_11.PDF [Accessed: 18 August 2012].

Holbrook, M. (2005) Customer value and autoethnography: Subjective personal introspection and the meanings of a photograph collection. *Journal of Business Research*, [Online] 58 (1), 45-61. Available from: http://www.sciencedirect.com/science/article/pii/S0148296303000791 [Accessed: 18 August 2012].

Holbrook, M. (2006) ROSEPEKICECIVECI versus CCV: The resource-operant, skills-exchanging, performance-experiencing, knowledge-informed, competence-enacting, coproducer-involved, value-emerging, customer-interactive view of marketing versus the concept of customer value: 'I can get it for you wholesale'. In: Lusch, R. and Vargo, S. (eds.) *The Service-Dominant Logic of Marketing: Dialog, Debate, and Directions*, Armonk, M.E. Sharpe, pp. 208-223.

Hunt, S. (2004) On the service-centered dominant logic for marketing, *Journal of Marketing*, 68 (1), 21-22.

Keeter, S. et al. (2006) Gauging the impact of growing nonresponse on estimates from a national RDD telephone survey. *Public Opinion Quarterly*, [Online] 70 (5), 759-779. Available from: http://poq.oxfordjournals.org/content/70/5/759.abstract [Accessed: 31 August 2012].

Khalifa, A. (2004) Customer value: A review of recent literature and an integrative configuration. *Management Decision*, [Online] 42(5), 645–666. Available from: http://www.emeraldinsight.com/case_studies.htm/case_studies.htm?articleid=865509&show=html [Accessed: 18 August 2012].

Krueger, R. (1998a) *Analysing and Reporting Focus Group Results*. London, Sage.

Krueger, R. (1998b) *Developing Questions for Focus Groups*. London, Sage.

Krueger, R. and Casey, M. (2009) *Focus Groups: A Practical Guide for Applied Research*, (4th edition). Los-Angeles, Sage.

Levy, S. (2006) How new, how dominant? In: Lusch, R. and Vargo, S. (eds.) *The Service-Dominant Logic of Marketing: Dialog, Debate, and Directions*, Armonk, M.E. Sharpe, pp. 57-64.

Lomas, L. (2007) Are students customers? Perceptions of academic staff. *Quality in Higher Education*, [Online] 13 (1) 31–34. Available from: http://www.tandfonline.com/doi/abs/10.1080/13538320701272714 [Accessed: 18 August 2012].

Lovelock, C. and Wirtz. J. (2003) *Services Marketing: People, Technology, Strategy*, (5th edition). New Jersey, Prentice Hall.

Lusch, R. and Vargo, S. (2009) Service-dominant logic — a guiding framework for inbound marketing. *Marketing Review St. Gallen*, [Online] 26 (6), 6-10. Available from: http://www.sdlogic.net/MRSG_6-09_Lusch_&_Vargo.pdf [Accessed: 18 August 2012].

Lusch, R. and Vargo, S. (n.d.) *Service-Dominant Logic*. [Online]. Available from http://sdlogic.net/ [Accessed: 18 August 2012].

Lusch, R., Vargo, S. and Malter, A. (2006) Marketing as service-exchange: Taking a leadership role in global marketing management, *Organizational Dynamics*, [Online] 35 (3), 264. Available from: http://connection.ebscohost.com/c/articles/21610651/marketing-as-service-exchange-taking-leadership-role-global-marketing-management [Accessed: 18 August 2012].

Lusch, R., Vargo, S. and O'Brien, M. (2007) Competing through service: Insights from service-dominant logic. *Journal of Retailing*, [Online] 83 (1), 5-18. Available from: http://www.sciencedirect.com/science/article/pii/S0022435906000649 doi:10.1016/j.jretai.2006.10.002 [Accessed: 18 August 2012].

Lusch, R., Vargo, S. and Wessels, G. (2008) Towards a conceptual foundation for service science: contributions from service-dominant logic. *IBM Systems Journal*. [Online] 47 (1), 5-14. Available from: http://dl.acm.org/citation.cfm?id=1376066 [Accessed: 18 August 2012].

Macmillan English Dictionary for Advanced Learners (2006). Oxford, Macmillan Education.

Maglio, P. and Spohrer, J. (2008) Fundamentals of service science. *Journal of the Academy of Marketing Science*, [Online] 36 (1), 18-20. Available from: http://www.springerlink.com/content/543hrv322h245017/ [Accessed: 18 August 2012].

McCulloch, A. (2009) The student as co-producer: Learning from public administration about the student–university relationship. *Studies in Higher Education*, [Online] 34 (2), 171–87. Available from: http://ura.unisa.edu.au/R/?func=dbin-jump-full&object_id=60269 [Accessed: 18 August 2012].

Miles, M. and Huberman. A. (1994) *Qualitative Data Analysis: A Sourcebook of New Methods*, (2nd edition), London, Sage.

Molesworth, M., Nixon, E. & Scullion, R. (2009) Having, being and higher education: The marketisation of the university and the transformation of the student into consumer. *Teaching in Higher Education*, [Online] 14, 277–287. Available from: http://eprints.bournemouth.ac.uk/7187/ [Accessed: 18 August 2012].

Ng, I. and Forbes, J. (2009) Education as service: The understanding of university experience through the service logic. *Journal of Marketing for Higher Education*, [Online] 19, 38–64. Available from: https://eric.exeter.ac.uk/repository/bitstream/handle/10036/33054/ng12.pdf [Accessed: 18 August 2012].

Obermiller, C. and Atwood, A. (2011) In defense of the student as customer metaphor. *International Journal of Management Education*, [Online] 9 (3), 13–16. Available from: http://www.heacademy.ac.uk/assets/bmaf/documents/publications/IJME/Vol9no3/346IJMEa.pdf [Accessed: 18 August 2012].

OECD, (2003) Career guidance: New ways forward, *Education Policy Analysis*, [Online] Available from: www.oecd.org/dataoecd/13/34/19975192.pdf [Accessed: 18 August 2012].

O'Shaughnessy, J. and O'Shaughnessy, N. (2009) The service-dominant perspective: a backward step? *European Journal of Marketing*, [Online] 43 (5/6), 784-93. Available from: http://www.emeraldinsight.com/journals.htm?articleid=1793093 [Accessed: 18 August 2012].

Oxford Dictionary of English Online (2010) Oxford Reference Online, Oxford University Press. [Online]. Available from: http://www.oxfordreference.com [Accessed: 18 August 2012].

Pickard, A. (2007) *Research methods in information.* London, Facet.

Powell, R., Single, H. and Lloyd, K. (1996) Focus groups in mental health research: Enhancing the validity of user and provider questionnaires, *International Journal of Social Psychology*, [Online] 42 (3), 193-206. Available from: http://www.ncbi.nlm.nih.gov/pubmed/8889643 [Accessed: 18 August 2012].

Prahalad, C. and Ramaswamy, V. (2000) Co-opting customer competence. *Harvard Business Review*. [Online] 78 (1), 79-87. Available from: http://hbswk.hbs.edu/archive/1299.html [Accessed: 18 August 2012].

Prahalad, C. and Ramaswamy, V. (2004a) The *Future of Competition: Co-Creating Unique Value with Customers.* Boston, Harvard Business School Press.

Prahalad, C. and Ramaswamy, V. (2004b) Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing*, [Online] 18 (3), 5-14. Available from: http://hdl.handle.net/2027.42/35225 [Accessed: 18 August 2012].

Rowley, J. (2002) Using case studies in research. *Management Research News*, [Online] 25 (1), 16-27. Available from: http://www.arf-asia.org/resources/using_case_study_in_research.pdf [Accessed: 18 August 2012].

Rust, R. (2004) If everything is service, why is it happening now, and what difference does it make? *Journal of Marketing*, 68 (1), 23-24.

Sánchez-Fernández, R., Iniesta-Bonilla, Á. and Holbrook, M. (2009) The conceptualisation and measurement of consumer value in services. *International Journal of Market Research*, [Online] 51(1), 93–113. Available from: http://www.ijmr.com/articles/TOC.asp?ArticleID=88818 [Accessed: 18 August 2012].

Schembri, S. (2006) Rationalizing service logic, or understanding services as experience? *Marketing Theory*, [Online] 6 (3), 381-392. Available from: http://mtq.sagepub.com/content/6/3/381.short [Accessed: 18 August 2012].

Schwarzer, C. and Posse, N. (2011) In: Schmidt-Rauch, S. and Nussbaumer, P. (eds.) *ECIS 2011*: *Putting value co-creation into practice: A case for advisory support, Proceedings of the European Conference on Information Systems 2011, 9-11 June, Helsinki, Finland*, [Online] Available from: http://www.merlin.uzh.ch/publication/show/2518 [Accessed: 18 August 2012].

Sheth, J. and Parvatiyar, A. (2000), Relationship marketing in consumer Mamkets: Antecedents and consequences. In: Sheth J. & Parvatiyar A. (eds.) *Handbook of Relationship Marketing*, Thousand Oaks, Sage.

Smith, L. and Ng, I. (2012) Service systems for value co-creation. *Working Paper*, *Warwick Manufacturing Group, Coventry*, *UK*, [Online] Available from: http://wrap.warwick.ac.uk/41098/ [Accessed: 18 August 2012].

Stewart, D. and Shamdasani, P. (1990) *Focus Groups: Theory and Practice*. London, Sage.

Vargo, S. and Akaka, M. (2009) Service-Dominant Logic as a foundation for Service Science: clarifications, *Service Science,* [Online] 1 (1), 32-41. Available from: http://www.sersci.com/ServiceScience/upload/12373114340.pdf [Accessed: 18 August 2012].

Vargo, S. and Lusch, R. (2004) Evolving to a new dominant logic for marketing. *Journal of Marketing*, [Online] 68 (2), 1 – 17. Available from: http://kuester.bwl.uni-mannheim.de/uploads/media/Vargo___Lusch__2004__Evolving_to_a_New_Dominant_Logic_for_Marketing_01.pdf [Accessed: 18 August 2012].

Vargo, S. and Lusch, R. (2006) Service-dominant logic: What it is, what it is not, what it might be. In: Vargo, S. & Lusch, R. (edt.) *The Service Dominant Logic of Marketing: Dialog, Debate and Directions*. Armonk, M.E. Sharpe.

Vargo, S. and Lusch, R. (2008a) From goods to service(s): Divergences and convergences of logics. *Industrial Marketing Management*, [Online] 37 (3), 254-259. Available from: http://www.sciencedirect.com/science/article/pii/S0019850107001514 [Accessed: 20 August 2012].

Vargo, S. and Lusch, R. (2008b) Service-dominant logic: continuing the evolution. *Journal of the Academy of Marketing Science*, [Online] 36 (1), 1-10. Available from: http://www.iei.liu.se/fek/frist/722g60/filarkiv-2011/1.256835/VargoLusch-JAMS2008-Continuingtheevolution.pdf [Accessed: 20 August 2012].

Vargo, S. and Lusch, R. (2008c) Why "service"? *Journal of the Academy of Marketing Science*, [Online] 36 (1), 25-38. Available from: http://www.sdlogic.net/Vargo_and_Lusch_2008_JAMS_Why_Service.pdf [Accessed: 20 August 2012].

Vargo, S. and Lusch, R. (2011) Service-dominant logic: A necessary step. *European Journal of Marketing*, [Online] 45 (7/8), 1298 – 1309, Available from: http://www.emeraldinsight.com/journals.htm?articleid=1915347 [Accessed: 20 August 2012].

Woodall, T. (2003) Conceptualising 'value for the customer': An attributional, structural and dispositional analysis. *Academy of Marketing Science Review*, [Online] 12, 119-136. Available from: http://www.jstor.org/stable/10.2307/30162077 [Accessed: 20 August 2012].

Woodall et al. (2012) Making sense of higher education: Students and the value of the university experience. *Studies in Higher Education*, [Online] 2, 1-20. Available from: http://www.tandfonline.com/doi/abs/10.1080/03075079.2011.648373 [Accessed: 20 August 2012].

Woodruff, R. (1997) Customer value: The next source for competitive edge. *Journal of the Academy of Marketing Science*, [Online] 25 (2), 193–153. Available from: http://www.springerlink.com/content/387342265x0422lq/ [Accessed: 20 August 2012].

Yin, R. (2009) *Case Study Research: Design and Methods*. Los-Angeles, Sage.

Exploratory studies consulted in preparation for this research

Baron, S. and Warnaby, G. (2011) Individual customers' use and integration of resources: Empirical findings and organizational implications in the context of value co-creation. *Industrial Marketing Management,* [Online] 40 (2), 211-218. Available from: http://dx.doi.org/10.1016/j.indmarman.2010.06.033 [Accessed: 30 August 2012]

Blazevic, V. and Annouk, L. (2008) Managing innovation through customer coproduced knowledge in electronic services: an exploratory study. Journal of the Academy of Marketing Science, [Online] 36 (1), 138-151. Available from: DOI: 10.1007/s11747-007-0064-y [Accessed: 30 August 2012]

Broady-Preston, J. and Lobo, A. (2011**)** Measuring the quality, value and impact of academic libraries: the role of external standards, *Performance Measurement & Metrics: The International Journal for Library and Information Services,* [Online] 12 (2), 122-135. Available from: DOI 10.1108/14678041111149327 [Accessed: 30 August 2012].

Broady-Preston, J. and Swain, W. (2012) What business are we in? Value added services, core business and national library performance. *Performance Measurement & Metrics: The International Journal for Library and Information Service,* [Online] 13 (2), 107 - 120. Available from: DOI 10.1108/14678041211241323 [Accessed: 30 August 2012].

Pickard, A. and Pat Dixon, (2004) Measuring electronic information resource use: towards a transferable quality framework for measuring value, *VINE,* [Online] 34 (3), 126 – 131. Available online: DOI 10.1108/03055720410563496 [Accessed: 30 August 2012]

Appendices

Appendix 1: Search terms used

Note: These terms were used in multiple combinations with each other

Terms	Resources							
	AGCAS	Aberystwyth University Library Catalogue - Primo	EBSCO	Google Scholar	Index to Theses	LISA	LISTA	WoK
Career guidance								
Career service								
Careers service								
Education								
Education as service								
Higher Education								
Higher Education as service								
Information								
SD Logic								
Service-Dominant logic								
Student as customer								
Value cocreation								
Value co-creation								
Value creation								

Appendix 2: Email invitation to participate in research via blog

Dear [FirstName],

I am studying for a Masters degree in Information and Library Studies at Aberystwyth University and am currently researching the role of offered information and information provision channels in customer value creation process for the dissertation. As part of this research I am conducting an initial data collection via a blog to prepare a data collection instrument for the next stage of the study. The research question is: How do information and information provision channels offered by the Imperial College Business School Careers Service contribute to student value creation process?

As you have used the Careers Service extensively during your study I would very much appreciate if you could contribute your opinion, experiences and impressions relevant to the subject to the discussion. To access the blog please follow the link: [link]. The blog will be open for 2 weeks and will close on Friday 24 August. All replies will be treated confidentially and will be anonymised. It will take from 5 to 15 min of your time daily depending on how much you have/would like to contribute to the discussion. Participation in the research is entirely optional. Also, if you feel that for any reason you would like to terminate your participation, please feel free to do so at any time and stage - you can opt out of the blog via unsubscribing.
In addition, if you wish so, you can use nick name instead of your real name.

If you have any questions or would like further information about this research, please contact me by email at: [removed for confidentiality reasons].

Thanks a lot for your help. Your contribution to the blog is very valuable to me.

Best wishes
Olga Studinska

Appendix 3: A screenshot of a blog posting

Appendix 4: Email invitation to participate in a focus group

Dear [First Name],

I am studying for a Masters degree in Information and Library Studies at Aberystwyth University and am currently researching the role of offered information and information provision channels in customer value creation process for the dissertation. As part of this research I am conducting a second round of data collection which involves a focus group to investigate how information and information provision channels offered by the Imperial College Business School Careers Service contribute to student value creation process.

As you have used the Careers Service extensively during your study I would very much appreciate if you could share your opinions, experiences and impressions relevant to the subject with me. The focus group will be held from 18.00 till 19.30 on Wednesday 29 August 2012 in the Business School building, Level 1, Room 185. Coffee, tea and a homemade cake will be provided. All replies will be treated confidentially and will be anonymised. Participation in the research is entirely optional. Also, if you feel that for any reason you would like to terminate your participation, please feel free to do so at any time and stage.

If you are happy to participate in the focus group, please confirm by replying to the following questions via email:

- Do you accept that the focus group will be recorded?
- Do you accept that your transcribed and anonomised comments will be included in my dissertation?

If you have any questions or would like further information about this research, please contact me by email at: [removed for confidentiality reasons].

Thanks a lot for your help. Your participation in the focus group is very valuable for me.

Best wishes
Olga Studinska

Appendix 5: Focus group data collection instrument

1. Introduction

- ✓ Welcome and thank the participants for agreeing to participate in the focus group
- ✓ Mention the duration of the focus group
- ✓ Repeat the confidentiality statement
- ✓ Repeat that the focus group session will be audio recorded and ask once again whether they are OK with this
- ✓ Provide a brief description of the research underlining that in this focus group we have to concentrate on the information and information provision channels offered by the Careers Service and **NOT** on the whole Careers Service
- ✓ Explain why they were chosen
- ✓ Explain that there is no wrong or right answer and every opinion/viewpoint/etc is important (negative or positive)
- ✓ Explain the importance of each person being allowed to speak and contribute to the discussion

2. Opening question

Q 1: Please introduce yourself and tell us in a few words what programme you are enrolled on and why you have chosen it.

3. Introductory questions

Q 2: When you hear the words "the Business School Careers Service" what comes to mind?

Q 3: What has led you to use the Careers Service?

4. Transition questions

Q 4: How do you think information fits into the Careers Service?

Q 5: What types of information that we offer you are familiar with?

<u>Note for a moderator:</u> Write answers down on flip chart in bullet points

Q 6: What information channels that we provide you are familiar with?

<u>Note for a moderator:</u> Write answers down on flip chart in bullet points

5. Key questions

Give the participants pre-designed A4 size response cards.

Please jot down your experiences, both positive and negative, of how the information provided via the below channels helped you to achieve your career specific goals.													
Blackboard Careers Module		Information /Training sessions		Careers Service Webpage		The Careers Hub		In person Consultations		Advice via Emails/e-bulletins		Careers Resources Library	
Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative

Q 7: Please jot down your experiences, both positive and negative, of how items listed on the card helped you to achieve your career specific goals.

<u>Note for a moderator:</u> Allow 5 minutes for participants to think and write down

Now, let's discuss your examples in more detail. Let's do it like this: one example per person, going in circles. After each example is spelled out, all are welcome to comment or express your opinion.

<u>Note for a moderator:</u> Allow 20 minutes for discussion

Q 8: Imagine that here, at the Business School Careers Service, we stopped providing relevant information resources and information provision channels. Please list on the provided card the negative impact, if any, this would have on achieving your specific goals when using the Careers Service.

<u>Note for a moderator:</u> Allow 3 minutes for participants to think and write down

Now, let's discuss what you have written down in more detail. Let's do it in the same way as previously - one point per person, going in circles. After each point is spelled out, all are welcome to comment or express your opinion.

<u>Note 1 for a moderator:</u> Allow 15 minutes for discussion

<u>Note 2 for a moderator:</u> While the participants discuss, write the main points that are mentioned on flip chart

6. Summary questions

Shown the list to the participants

Q 9: Is this an adequate representation of what we discussed?

<u>Note for a moderator:</u> Discuss and add/remove till everybody in the group agrees with the list

Q 10: Is there anything relevant that you would like to add that we didn't cover?

7. Ending

- ✓ Thank the participants for taking part in the focus group
- ✓ Ask them whether they would like to learn about the outcomes of the research
- ✓ If yes, ask how they would like to be communicated about this.

Appendix 6: Email invitation to participate in research (questionnaire)

Dear [First Name],

I am studying for a Masters degree in Information and Library Studies at Aberystwyth University and am currently researching the role of offered information and information provision channels in customer value creation process for the dissertation. As part of this research I am conducting a survey via a questionnaire to investigate how information and information provision channels offered by the Imperial College Business School Careers Service contribute to student value creation process. This is the final stage of my research.

As you have used the Careers Service extensively during your study I would very much appreciate if you could share with me your opinions. All replies will be treated confidentially and will be anonymised. Participation in the research is entirely optional. If you feel that for any reason you would like to terminate your participation, please feel free to do so at any time.

If you would like to participate, please click the following link: [SurveyLink]. The questionnaire will take around 15 minutes to complete and will remain open until Monday 17 September 2012. You can complete the questionnaire in one go or, alternatively, you can revisit it as many times as you need.
If you have any questions or would like further information about this research, please contact me by email at: [removed for confidentiality reasons].

Your reply is very valuable as a high response rate is crucial for the validity of the research.

Best wishes,
Olga Studinska

Please note: If you do not wish to receive further emails from me, please click the link below, and you will be automatically removed from our mailing list [Link].

Appendix 7: Copy of the questionnaire

Questionnaire

The role of information and information provision channels in customer value creation process survey

This survey is the final stage of a wider study examining the role of the offered information and information provision channels in the process of customer value creation within the Imperial College Business School Career Service. The survey results will be used to test the validity of the findings from the preceding research phase (focus group).

The survey contains 12 statements, for each one of which the honest degree of your agreement or disagreement is sought.

All replies will be treated confidentially and will be anonymised. Participation in the research is entirely optional. If you feel that for any reason you would like to terminate your participation, please feel free to do so at any time.

The questionnaire will take around 15 minutes to complete and will remain open until Monday 17 September 2012. You can complete the questionnaire in one go or, alternatively, you can revisit it as many times as you need.

Your reply is very valuable as a high response rate is crucial for the validity of the research.

1. When I use the information provided by the Career Service I often learn something new and/or useful.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
○	○	○	○	○

2. I feel confused when faced with the information and information communication channels provided by the Career Service.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
○	○	○	○	○

Next

Questionnaire

3. The information offered by the Career Service enables me to do what I want to do more effectively.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
○	○	○	○	○

4. It is not easy to access the needed information online when and where I need it.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
○	○	○	○	○

Prev Next

Questionnaire

5. I use the information provided by the Career Service because I know that it is reliable and trustworthy.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
○	○	○	○	○

6. It takes considerable effort to locate the needed information and to learn how to use the information communication tools.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
○	○	○	○	○

Prev Next

Questionnaire

7. Using the information resources and information communication channels provided by the Career Service helps me save time.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
○	○	○	○	○

8. The information provided by the Career Service does not help me to do well such things as finding job adverts, writing CVs and job applications, preparing for interviews, etc.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
○	○	○	○	○

Prev Next

Questionnaire

9. If I do not know how to find the needed information, I can always ask and I will be helped.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
○	○	○	○	○

10. I feel dissatisfied with the information resources and tools provided by the Career Service.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
○	○	○	○	○

Prev Next

Questionnaire

11. The provided information helps me to make better judgements with regard to my career related needs.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
○	○	○	○	○

12. The information provided by the Career Service does not add much to my knowledge.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
○	○	○	○	○

Prev Done

Appendix 8: Sample of the focus group data analysis (coding and quotations extraction)

Q7 Please jot down your experiences, both positive and negative, of how items listed helped you to achieve your specific goals when using the Career Service. (Discussion followed).

A Blackboard Career Section

P1 Blackboard is easy to discuss as it is compulsory to undertake the Career Module. The Module for me was pretty much straight forward to complete. Every single step was packed with information and if I got stuck I could always check how to do things. — Helped learning → Increase knowledge base

P2 For me it was the first ever contact with career related staff in this country and it was nice to learn some useful things about how to do everything correctly. For example, that here it is not the norm to put yor photo into yor CV or mention yor age and that we have to do 1 page CV. — Helped learning → Increase knowledge base

P3 I liked the Blackboard Module too. That exercise about your strengths and weaknesses made me realise that there are a lot of interesting jobs out there. Before I thought that I would — Helped widen perspective → Widen perspective

p. 7

become a consultant just because it sounded cool. It made me be a little bit more openminded. I learn whenever I can about various jobs. I compare them and contrast and check how much they suit my personality.

Help widening perspective !

P4 For me, the best thing about it was that it helped me prepare a good cv well in advance before I started the course. So I didn't have to waste my time when the term started. Having said that, I think it shouldn't be compulsory. One of my friends wants to set up a company. He doesn't need to kow about CVs or cover letters. It is waste of time for him basically. What he needs ~~is~~ to find info on how to go about setting up a company straight away.

Helped saving time
↓
Increase Efficiency !

Potentially value destroying !!!

P1 I actually disagree. You do your "strengths and weaknesses" there too. I allso want to set up a company. But after this exercise I realised that it is better for me to go and work for someone else at first and have a look how other people do it and then do it by myself.

Help widening perspective !

p. 8

Appendix 9: Category colour coding guide

Category	Colour
Increase of knowledge base	
Increase of competence	
Increase of confidence	
Increase of efficiency	
Increase of convenience	
Widening of perspective	
Note: Potential value destruction instances	

Appendix 10: Questionnaire data analysis (Stage 1)

PAGE: THE ROLE OF INFORMATION AND INFORMATION PROVISION CHANNELS IN CUSTOMER VALU...

1. When I use the information provided by the Career Service I often learn something new and/or useful.

Create Chart Download

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Rating Average	Response Count
	57.0% (49)	30.2% (26)	10.5% (9)	2.3% (2)	0.0% (0)	4.42	86
						answered question	**86**
						skipped question	**0**

2. I feel confused when faced with the information and information communication channels provided by the Career Service.

Create Chart Download

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Rating Average	Response Count
	0.0% (0)	4.7% (4)	12.8% (11)	22.1% (19)	**60.5% (52)**	4.38	86
						answered question	**86**
						skipped question	**0**

3. The information offered by the Career Service enables me to do what I want to do more effectively.

Create Chart Download

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Rating Average	Response Count
	80.2% (69)	19.8% (17)	0.0% (0)	0.0% (0)	0.0% (0)	4.80	86
						answered question	**86**
						skipped question	**0**

4. It is not easy to access the needed information online when and where I need it.

Create Chart Download

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Rating Average	Response Count
	2.3% (2)	4.7% (4)	24.4% (21)	**43.0% (37)**	25.6% (22)	3.85	86
						answered question	**86**
						skipped question	**0**

5. I use the information provided by the Career Service because I know that it is reliable and trustworthy.

Create Chart Download

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Rating Average	Response Count
	64.0% (55)	36.0% (31)	0.0% (0)	0.0% (0)	0.0% (0)	4.64	86
						answered question	**86**
						skipped question	**0**

6. It takes considerable effort to locate the needed information and to learn how to use the information communication tools.

Create Chart Download

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Rating Average	Response Count
	0.0% (0)	4.7% (4)	5.8% (5)	**48.8% (42)**	40.7% (35)	4.26	86
						answered question	**86**
						skipped question	**0**

7. Using the information resources and information communication channels provided by the Career Service helps me save time.

Create Chart Download

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Rating Average	Response Count
	50.0% (43)	40.7% (35)	9.3% (8)	0.0% (0)	0.0% (0)	4.41	86
						answered question	**86**
						skipped question	**0**

8. The information provided by the Career Service does not help me to do well such things as finding job adverts, writing CVs and job applications, preparing for interviews, etc.

Create Chart Download

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Rating Average	Response Count
	0.0% (0)	0.0% (0)	18.6% (16)	**44.2% (38)**	37.2% (32)	4.19	86
						answered question	**86**
						skipped question	**0**

9. If I do not know how to find the needed information, I can always ask and I will be helped.

Create Chart Download

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Rating Average	Response Count
	95.3% (82)	3.5% (3)	1.2% (1)	0.0% (0)	0.0% (0)	4.94	86
						answered question	**86**
						skipped question	**0**

10. I feel dissatisfied with the information resources and tools provided by the Career Service.

Create Chart Download

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Rating Average	Response Count
	0.0% (0)	1.2% (1)	5.8% (5)	45.3% (39)	**47.7% (41)**	4.40	86
						answered question	**86**
						skipped question	**0**

11. The provided information helps me to make better judgements with regard to my career related needs.

Create Chart Download

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Rating Average	Response Count
	68.6% (59)	30.2% (26)	1.2% (1)	0.0% (0)	0.0% (0)	4.67	86
						answered question	**86**
						skipped question	**0**

12. The information provided by the Career Service does not add much to my knowledge.

Create Chart Download

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Rating Average	Response Count
	0.0% (0)	3.5% (3)	8.1% (7)	36.0% (31)	**52.3% (45)**	4.37	86
						answered question	**86**
						skipped question	**0**

Appendix 11: Questionnaire data analysis (Stage 2)

	Increase of Knowledgebase	Increase of Competence	Increase of Confidence	Increase of Efficiency	Increase of Convenience	Widening of Perspective
Positive Statement Rating Average	4.42	4.80	4.64	4.41	4.94	4.67
Negative Statement Rating Average	4.37	4.40	4.19	4.26	3.85	4.38
Mean Rating Average	**4.40**	**4.60**	**4.42**	**4.34**	**4.40**	**4.53**